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Front view



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## THE EGYPTIAN ORIGIN OF THE SEMITIC ALPHABET

BY ALAN H. GARDINER, D.LITT.

AMONG the unsolved problems of philology and archaeology few present more interest or more difficulty than that of the origin of the Semitic scripts and, derivatively, of our own writing. It is comparatively easy to trace the development of the various European alphabets out of the Greek, and, on the Semitic side, to follow the respective ramifications of the Phoenician and the Sabaean; the real *crux* is the common ancestry of these three. Until recently Phoenician was held by most scholars to have been the actual parent whence the Greek and the Sabaean, with their offshoots and its own, ultimately sprang; and for the moment it may suffice to state the problem from this point of view. About the tenth century B.C. there appears upon Syrian soil an alphabet of twenty-two linear signs, which is with sufficient accuracy for our purpose described as the Phoenician alphabet. It has been universally recognized that so simple, and therefore so perfect, an instrument for the visible recording of language could not conceivably have resulted from one spontaneous effort of genius. Cruder and more primitive methods of writing must obviously have preceded it, and since there are no traces of any earlier indigenous stages of the kind, scholars have agreed that the Phoenician alphabet must have been derived from, or in some way modelled upon, the writing of one or other of the older Mediterranean or Mesopotamian civilizations.

Here, however, agreement ends, and no specific proposal that has yet been made seems to have won more than a very limited number of supporters. Naturally Egypt was the quarter in which the solution of the problem was first sought; but the hypothesis of a direct borrowing from the Egyptian hieroglyphs, suggested by LENORMANT,<sup>1</sup> was later on abandoned by its own author himself.<sup>2</sup> A more closely-argued theory, according to which the Phoenician characters originated in the cursive Egyptian script known as hieratic, was subsequently advanced by DE ROUGÉ;<sup>3</sup> and this theory long enjoyed a wholly undeserved popularity. The attempts to connect the Phoenician with the Babylonian cuneiform writing, or with the picture-writing that preceded the

<sup>1</sup> François LENORMANT's views were never published by that scholar himself, but were set forth by his pupil Dr ROTOU in the book named in the next note. The present article practically advocates a return to LENORMANT's view.

<sup>2</sup> Dr ROTOU, *Mémoire sur l'origine égyptienne de l'alphabet phénicien*, Paris, 1874.

Journ. of Egypt. Arch. III.

latter, have proved equally sterile; more or less divergent systems have been propounded by BALL, DELITZSCH, HÖMMEI and others<sup>1</sup>, but no sort of unanimity has been attained even among those who are at one in favouring a Babylonian birthplace.

Egypt and Mesopotamia having thus seemingly failed to solve the problem, there is now a marked tendency to seek the solution farther westward, in Asia Minor, in Cyprus or in Crete. Thus PRÄTORIUS<sup>2</sup>, an able and cautious scholar, would derive the earliest native Semitic writing from a syllabary resembling that later used in Cyprus. Sir Arthur EVANS<sup>3</sup> advocates its origin in the Minoan scripts discovered by himself in Crete, an opinion adopted in a modified form by DUSSAUD<sup>4</sup>. Professor Stewart MACALISTER<sup>5</sup> compares the puzzling and still wholly unique hieroglyphic script of the Phaestos disk. Professor PETRIE<sup>6</sup>, lastly, argues that the Phoenician writing crystallized out of a widely diffused signary of which he finds evidence in all corners of the Mediterranean littoral.

To criticize these diverse theories would be a long and difficult task, wholly beyond the scope of this article. My main purpose here is to introduce into the discussion some remarkable evidence, hitherto only partially known, which would appear to put the case for an Egyptian origin on an entirely new footing. Unfortunately it will be impossible to dispense with lengthy controversial preliminaries, due to the fact that the problem is no longer merely that of the origin of the Phoenician script<sup>7</sup>. The main issue of late has been the relations of the Phoenician, the Greek and the South-Semitic alphabets, and it is only through a consideration of those relations that any conception can be formed as to the nature of the common parent, which it will be convenient to term the proto-Semitic script. Without some knowledge of the proto-Semitic script it would be obviously futile to attempt to track the remoter ancestor that lies behind it.

As lately as 1901 Professor LIDZBARSKI, one of the most eminent of Semitic epigraphists, was still able to regard the so-called Phoenician alphabet, in the form in which it is found on the most ancient gems and seals (9th century B.C.) and on the Moabite stone (circa 840 B.C.), as practically identical with this proto-Semitic script; and he therefore tries to indicate the manner in which the Sabean and Greek forms may have been derived from the Phoenician<sup>8</sup>. Lidzbarski lays much stress on the fact that until considerably after 1400 B.C., the approximate date of the El Amarna tablets, the Babylonian cuneiform was the official script used throughout the length and breadth of Syria; had the Phoenician alphabet then been in existence, there would surely, he argues, have been some trace of it in the Canaanite glosses.

<sup>1</sup> For a good summary of these, as indeed of the whole question, see GESENIUS-KAUTZSCH, *Hellenische Grammatik*, 28th edition, § 5, γ (Pl. 29—30).

<sup>2</sup> FR. PRÄTORIUS, *Über den Ursprung des konzentrischen Alphabets*, Berlin, 1900. A translation of this autographed essay, the handwriting of which presents some difficulty to an English reader, has been published in the *Annual Report of the Board of Regents of the Smithsonian Institution* for 1907, pp. 596—604.

<sup>3</sup> A. J. EVANS, *Scripta Minoae*, vol. i, Oxford, 1909, especially pp. 77—94.

<sup>4</sup> R. DUSSAUD, *Les Arabes en Syrie avant l'Islam*, Paris, 1907, pp. 57—90.

<sup>5</sup> S. MACALISTER, *The Philistines*, London, 1914, pp. 128—130.

<sup>6</sup> W. M. FLINDERS PETRIE, *The Formation of the alphabet*, London, 1912.

<sup>7</sup> I am deeply indebted to Dr A. E. COWLEY for various hints and counsels.

<sup>8</sup> *Ephemeris für semitische Epigraphik*, vol. i (1901), pp. 110—136.

not infrequently found on those tablets. He assumes perhaps too readily that the Phoenician alphabet must from the start have belonged to the area where it is later found, but his argument at this point is not without some cogency. He is on far more dangerous ground, however, when he postulates the immutability of the Phoenician script in the centuries preceding its first disclosure to us; for this assumption his sole reason is its relative immutability during the five centuries following. There would be a very serious chronological difficulty about the derivation of the Minaeo-Sabaeen alphabet from the Phoenician, if GLASER and his followers were in any way justified in their view of the great antiquity of the Minaean texts. But LINDZBARTSKI is no believer in this view, and it must be admitted that any argument that is based upon it would be highly precarious. We have no proof that any Minaean texts go back even as far as 600 B.C., and it will be better to leave this factor wholly out of account. The real answer to LINDZBARTSKI is given by an examination of the methods by which he derives the South-Semitic (Minaeo-Sabaeen) letter-forms from the Phoenician; these methods are not unjustly described by Sir Arthur EVANS as "most violent and procrustean," and PRÄTORIUS and DUSSAUD have also criticized his *modus operandi* with not unmerited severity<sup>1</sup>. If anything is certain, it is that the South-Semitic group of scripts can just as little be descended from the Phoenician alphabet as this, conversely, can be descended from the South-Semitic group. They have undeniable elements in common, as a comparison of the equivalents of **ל**, **ב**, **ד**, **י**, **ש**, **ט**, **נ**, **מ** and **ר** will immediately show; but in the case of the other letters, such as **א**, **ת**, **פ**, **צ**, **ח**, **ד**, and **צ** the differences are such as at first sight to appear entirely irreducible.

The Greek alphabet, as a whole, is far more closely related to the Phoenician; yet in certain points it would appear to occupy a position intermediate between this and the Sabaeen. Thus Greek  $\gamma = \lambda$  and  $\zeta = \sigma$  in the oldest inscriptions agree with Sabaean  $\Gamma$  and  $\Zeta$  as against the Phoenician  $\mathcal{L}$  and  $\mathcal{W}$ . DUSSAUD quotes other letters as well, but his examples are not very convincing, except perhaps as regards the so-called additional letters of the Greek alphabet,  $\chi$ ,  $\phi$  and  $\psi$ ; these PRÄTORIUS<sup>2</sup> had previously identified with certain letters having very similar forms and values in the *Safit*-alphabet, a dialectal alphabet which with the *Lihyan* and *Thamud* alphabets, though not attested until at least the Hellenistic period, shows special affinities with the Minaeo-Sabaeen script.

To a student, like myself, only superficially acquainted with the problems of the Greek alphabet, its precise relationship to the Phoenician and the South-Semitic must seem hopelessly obscure. Putting aside the question of the additional letters<sup>3</sup>, the most plausible view would seem to be a slight modification of the old one,

<sup>1</sup> PRÄTORIUS, in *Zeitschrift der deutschen morgenländischen Gesellschaft (ZDMG)*, vol. 58 (1904), pp. 715—728; vol. 63 (1909), pp. 189—198. DUSSAUD, *loc. cit.*

<sup>2</sup> *ZDMG*, vol. 56 (1902), pp. 676—680.

<sup>3</sup> This can the more easily be done, since the absence of  $\phi$ ,  $\chi$  and  $\psi$  from the inscriptions of Thera, and their variable order in the *oboeodaria*, seem to indicate that they were really additions to the original twenty-two (or twenty-three) letters of the Greek alphabet. For a recent and, so far as I am able to judge, admirable account of the special problems of the Greek alphabet, see the article *Alphabet*, by P. GÜNTHER, in the *Encyclopaedia Britannica*, eleventh edition.

namely that the Greek was derived from the Phoenician, not indeed quite in the form in which the most ancient gems and the Moabite stone display it, but in some only slightly different and earlier form. DUSSAUD's tentative conjecture that the Phoenician was derived from the Greek must be regarded as pure paradox; I cannot admit, for reasons later to be discussed, that the names of the letters were not Semitic in origin, and still less that, if Semitic, they could have been imported into Greece apart from the alphabet itself. Nor is DUSSAUD's further view, that the Minaco-Sabaean alphabet was a derivative of the Greek, in any way more acceptable. However we may try to blink the fact, it seems clear that the Phoenician and the Greek are very closely akin, so that the same difficulties that arise over the connexion between Phoenician and South-Semitic must apply, in almost like degree, to the connexion between South-Semitic and Greek. Moreover, there are geographical and chronological<sup>1</sup> difficulties which render insurmountable the objections to DUSSAUD's hypothesis.

The accompanying Table<sup>2</sup> will illustrate the statements already made concerning the forms of the letters and other statements that are to follow. In the first column is shown the later Hebrew alphabet with some Arabic additions to indicate the supplementary letters common to Minaco-Sabaean and Arabic; in the second column are the Phoenician letters in their oldest known forms. Next we have the early Greek alphabet with its phonetic values expressed in terms of the later Greek characters; and after these the alphabets of the South-Semitic group, consisting of the Sabaean, the Lihyānite, the Thamūdenic, and the Safaitic. The rest of the Table will be explained later.

A careful examination of the forms of the various letters in the different alphabets can hardly fail to win our assent to the weighty judgement, which PRÄTORIUS, in his most recent article<sup>3</sup>, formulates thus: "Accordingly we are obliged very seriously to weigh the possibility that the South-Semitic alphabet is descended, not from the Mesha alphabet<sup>4</sup> or from some only slightly different and slightly older script, but rather from a much older script now unknown to us—a script which must in essentials have exhibited an alphabetic character. On this view the uniformity which the letters of the South-Semitic alphabet display among themselves, in strong contrast to the wholly different Phoenician alphabet, would find its explanation in the fact that the South-Semitic and the Phoenician alphabets were very ancient bifurcations from a script still plastic and not yet reduced to uniformity. A further inference to be

<sup>1</sup> If it is possible that the Greek alphabet, as such, was older than the authorities would have us believe, the same is equally true of the Minaco-Sabaean, though we do not venture to build upon the fact. The earliest dateable Minaco inscription mentions a war between Misr (i.e. Egypt) and the Madai (i.e. Mādā, Persians), which can only be the invasion of Egypt by Cambyses in 525 B.C.; see HALL, *The Ancient History of the Near East*, p. 564, n. 3. But there is no particular reason for supposing that this is the most ancient South-Semitic inscription that we actually possess, and at all events a very considerable space of time must be allowed for the Minaco-Sabaean signs to have acquired that symmetrical and architectonic appearance for which they are peculiar.

<sup>2</sup> Authorities: for the Phoenician, LANZBANSKI's Table in GESENIUS-KAUTZSCH, 28th edit.; for the Greek, K. S. ROBERTS, *Introduction to Greek Epigraphy*, vol. 1, pp. 4—22; for the South-Semitic alphabets, LIDZbarski, *Ephemeris für semitische Epigraphik*, vol. 2 (1908), p. 361.

<sup>3</sup> ZDMG, vol. 63 (1909), p. 191.

<sup>4</sup> I.e., the alphabet of the Moabite stone, which relates to the king Mesha named in 2 Kings, iii, 4, 5.





drawn would be this, that very possibly the intermediate stages between the Meshap-alphabet and the South-Semitic may now have completely disappeared."

PRÄTORIUS himself, in his detailed analysis of letters and his comparisons with the Cypriote syllabary, would appear not to have realized the full consequences of his own reasoned opinion. It practically means this, that where the forms of the North-Semitic and the South-Semitic letters differ, we can have no conception whatsoever, judging on the evidence of the forms alone, as to the real appearance of the corresponding proto-Semitic letters. Even where the forms in all the alphabets agree, or are in substantial agreement (as appears to be the case with **ג**, **ד**, **ה**, **ו**, **י**, **ך**, **ר**, **ש** and **ת** and rather less so with **ל**, **כ** and **ב**), there is still a double chance that the attested forms may differ widely from the proto-Semitic forms: there may have been independent but parallel development in the separate branches, or the shapes of the original alphabetic signs may have been seriously modified and linearized even before any bifurcation took place. On the other hand it is clearly possible that an isolated form, like Phoenician **ף** for instance, has retained much of its primitive semblance. My contention is, that though such little-modified forms may exist, a study of the forms alone cannot possibly teach us which of them are entitled to be considered as such.

In the following paragraphs I shall advocate a much greater importance for the traditional names of the letters, which are almost identical for the Phoenician and the Greek (see the Table), and are still for the most part recognizable in the Ethiopic (an offshoot of the Minaeo-Sabaeon). The meanings of these names, translated as Semitic words, are plain or plausible in seventeen cases<sup>1</sup>: 'alp means an ox, bēt a house, gaml a camel (?), dēlt a door, ḫām a hook or nail, ḫām a weapon (?), yēd a hand, kaf a bent hand, lāmd an ox-goad (?), mēm water, nūn a fish, semk a prop (?), 'min an eye, pē a mouth, rōsh a head, shin a tooth, and tau a sign or mark. The sense of the names hē, bēt, tēt, qādē and qaf is, on the contrary, either unknown or in the highest degree problematical. The pronunciation of the names here adopted is the hypothetical pronunciation deduced by NÖLDEKE from the traditional forms in Greek, Hebrew, Ethiopic and Syriac<sup>2</sup>. NÖLDEKE concludes, though not without hesitation, that the names indicate Phoenicia as their place of origin; the final -a of many of the Greek forms, which has been thought by some to suggest rather an Aramaic home, is explained by him as due to the desire to avoid ending the name with a mute. With regard to date, the names of the Greek letters rest on authority as old as the fifth and fourth centuries B.C.; the Septuagint and Eusebius are our oldest evidence for the names of the Hebrew letters—these too of course in Greek garb. The Ethiopic names rest on far later testimony. The tradition is thus at all events of a respectable age; making due allowance for the differences between the Greek and Hebrew names, and for the transference from one country to another, we cannot possibly date them later than 700 B.C.

The question is whether they are not far earlier, whether indeed they are not coeval with the proto-Semitic letters themselves, of the original forms of which they

<sup>1</sup> See J. P. PERMANS, *Recent Theories of the Origin of the Alphabet* in *Journal of the American Oriental Society*, vol. 22 (1901), pp. 177—198. Dr PERMANS takes exception to the four meanings that I have marked with a query; on *lāmd*, see below, p. 9.

<sup>2</sup> *Beiträge zur semitischen Sprachwissenschaft*, Strassburg, 1904, pp. 124—136.

would then, so far as they are intelligible, give both a description and the explanation. The majority of scholars have long held that these names point to the pictorial character of the proto-Semitic letters, though the full importance of this view has often been neglected in the discussions with regard to the forms of the letters. The supposition is, that 'alp' being the Semitic word for ox, an ox's head was depicted to indicate the 'soft breathing' with which this word begins; similarly 'bet' being the word for house, the miniature picture of a house supplied the letter *b*. The principle underlying this method of creating alphabetic letters is known as the principle of acrophony; and though it is not, as usually asserted, the principle that lies at the base of the Egyptian hieroglyphic system, it is none the less one that is natural and probable in itself. At all events any hypothesis that makes of the proto-Semitic script a variety of pictographic writing has all the anthropological probability on its side<sup>1</sup>.

This probability is greatly enhanced when we note, as has often been done, that the forms of certain early Semitic letters are roughly in agreement with the shapes indicated by the names. Alike in Phoenician, Greek and South-Semitic the signs for 'ain' and 'tau' are very fair representations of respectively an eye and that simplest kind of "mark," a cross; 'mem,' also, vividly recalls the zigzag  which in Egyptian hieroglyphic and elsewhere is the primitive symbol for water. In Phoenician and Greek, though not in South-Semitic, the signs for 'alp' and 'tau' may easily be construed as rough depictions of an ox's head and of a hook or nail. In South-Semitic, but not elsewhere, the sign for 'bet' somewhat resembles the ground-plan of a house, and that for 'pe' the contour of a mouth. In Phoenician the letter corresponding to the name 'kaf' may with a little imagination be interpreted as a hand. There are other comparisons, too, of a more hazardous kind, the Phoenician 'shin' as a couple of pointed teeth, the Sabaean form of 'delt'  which resembles the common Egyptian ideogram for door , and so forth.

Our sceptical conclusion with regard to the forms of the letters, as handed down to us, must not be forgotten at this point; it warns us that some of the resemblances we have detected may easily be the result of coincidence. This is of course the more likely where the compared letter-form rests on the testimony of only one or two of the three principal witnesses, as is the case with the Sabaean 'bet' , the Phoenician 'kaf' , or the Graeco-Phoenician 'tau' . But if some of the resemblances be accidental, all cannot be; the instances of 'ain', 'tau' and 'mem' are individually striking; collectively and in conjunction with the less obvious comparisons they carry

<sup>1</sup> It would lead me too far afield here to examine at length Professor PETRIE's views in his book *The Formation of the Alphabet*, where he omits all reference to the new Sinaitic script. The main objections, however, may be summarized as follows:—(1) The Egyptian potters' marks always occur singly and there is not the slightest evidence for their ever having acquired a phonetic value, similar potters' marks persisting right down to Roman times as something quite distinct from writing proper; (2) It is not sufficient to explain the acquisition of phonetic value by saying that it is due to some "great wrench of thought" (p. 4), but the process must be traced in detail, as I have attempted to do in this article and in a previous paper on Egyptian hieroglyphs; (3) the potters' marks are of so many varieties and of so linear a character that it is easy to pick out comparisons with almost any given true alphabetic letter, but in the lack of further evidence of a different kind such comparisons must be considered wholly arbitrary.

formidable cumulative weight. The likeness of  $\Delta$  to an ox's head has always appealed strongly to me personally, though Sabaean has a different form. Much latitude must, however, be left for individual differences of opinion in a delicate question of this kind.

When once the similarity between certain of the letters and the objects denoted by their names has been admitted to be due to design, an important basis will have been found for new and far-reaching conclusions. Not only shall we have at our command a test for distinguishing forms that are ancient from forms that are not, e.g. Sabaean  $\Theta$  for *pē* "mouth" as against Phoenician  $\mathcal{I}$ , but also we shall soon be found asking ourselves whether the names of the letters are not far better evidence for the proto-Semitic forms than the surviving letter-forms themselves. Let us try to reason this matter out. Either the names of the letters are primary, in which case they are all-important, or else they are secondary. Admit that they are primary, and it is perfectly easy to understand why, in the alphabets before us, some of the forms of the letters more resemble the objects denoted by their names than others; it is because Time has dealt unequally with these letters, simplifying some of them out of all recognition and preserving in others a rough likeness to their primitive shape. Suppose, on the contrary, that the names of the letters were invented in Phoenicia somewhere about the year 700 B.C.; on this supposition we shall find it impossible to discern any principle upon which the names could have been chosen, and we shall be brought face to face with insoluble difficulties.

The resemblance between  $\Delta$  and the head of an ox (*alf*) being admitted to be intentional, why did not the inventors find a more appropriate name than *bēt* for  $\mathfrak{b}$ , the similarity of which to a house is of the very smallest? So strongly has LIDZBARSKI felt this difficulty, that he has been beguiled into a wholly unwarrantable treatment of the subject<sup>1</sup>. He starts of course with the assumption that the alphabet to which the names have to correspond was the Phoenician alphabet. The Phoenician letter  $\Delta$  in no wise evoking the image of a door (*delt*), *delt* therefore cannot be the name of the object which aerophonically gave rise to  $\Delta$ ; this, he argues, must have been *dad* "the female breast," to which the shape of the sign  $\Delta$  shows a certain similitude. In like manner LIDZBARSKI would substitute *qessheth* "bow" for *gaf* and *garzēn* "axe" for *gaml*; and so forth. But what manner of criticism is this which simply discards the names of the letters that it finds unsuitable! It cannot be denied that  $\Delta$  was called *delt*, nor that  $\mathbb{P}$  was called *gaf*, nor that  $\mathcal{I}$  was called *gaml*. Whether these names please us or not, they are our *data* and we have to accept them, or at least to account for them in some way or other.

Now *bēt* and *delt* are common and intelligible Semitic words, and denote objects just as suitable for becoming letters as *alf* "an ox." There is nothing in their form or appearance which would suggest that they are corrupt, nor is there any likelihood that such is the case. In these and in most other cases the Greek and Hebrew testimony is in sufficient agreement, and their common source must date back at all events to the time when these names, on the hypothesis that they are secondary, were given. But if the names *bēt* and *delt* are not corrupt, then they could only be accounted for by supposing that the hypothetical Phoenician inventors,

*Ephemeris für semitische Epigraphik*, vol. I (1901), pp. 132—133; vol. II (1908), pp. 127—129.

despairing of finding names for certain letters at once beginning with the right sound and suggesting the right shape, were content to forgo the latter requirement, simply using any common word with the suitable initial consonant as the name for that consonant. If this line of argument were adopted it could be easily met. In the first place LIDZBARSKI's own suggestions *garṣon*, *dad*, *qesheth* and the rest testify to an ingenuity in the modern scholar which we must not refuse to the Phoenician inventors; and in the second place there are a number of letter-names (*ḥē*, *ḥēt*, *ṣēt*, *ṣādē* and *qof*) which are very far from satisfying either requirement, being wholly obscure and presenting the greatest difficulty to philologists. How these names could be accounted for on the hypothesis that the names of the letters are secondary I am unable to guess.

There is, however, a possibility that some of the names may be primary and others secondary; as a matter of fact this is more than a possibility, for there are certain variations in the different traditions, and where these occur, one must necessarily be older than the other. Thus whereas the Graeco-Phoenician name for *n* is *nūn* (*νῦν*, *vour*) "fish," the Ethiopic name is *nahīk*, which in Hebrew would mean "a serpent." The simplest way of explaining these alternatives is to suppose that at a given moment the sign for *n* no longer resembled a fish, but presented some likeness to a serpent, as indeed is actually the case with the surviving form of *n* in most of the alphabets. Some such explanation might also apply to Greek *zeta* against Hebrew *zaïn*, if the former, as Dr COWLEY thinks, means "an olive" and is not a mere meaningless sound due to the analogy of *bēta*, *hēta*, *theta*. It is important to note that in these cases the aerophonic principle is accepted as lying at the base of the choice of the names, whether primary or secondary; our faith in individual intelligible names is somewhat shaken, but the principle remains. With regard to the unintelligible names, we seem almost as far as ever from comprehending their origin; *ḥēt* and *ṣēt* might conceivably be copied from *bēt*, but *ḥē*, *ṣādē* and *qof* are still unexplained.

The view has recently been advanced that the five unintelligible names alone are original and that the seventeen other names are due either to popular etymology or to translation. This view must be carefully examined; in the three forms in which it presents itself, it is part and parcel of an attempt to prove that the Semitic alphabet is of Aegean origin. DUSSAUD, who derives the Phoenician alphabet from the Greek, quotes<sup>1</sup> as an example of how unintelligible names sometimes acquired intelligibility the Slavonic name *dobro* "oak" for *d*, the rejected name *delta* having no meaning in Greek; and he would have us draw the inference that all the intelligible Phoenician names may have come about in some similar way, as adaptations from originals in some unknown Aegean speech<sup>2</sup>. MACALISTER argues along much the same lines, and I select his less ambiguously worded contention for criticism. "It is commonly assumed," he writes<sup>3</sup>, "that because the names of the letters have a meaning

<sup>1</sup> *Op. cit.*, p. 88.

<sup>2</sup> DUSSAUD does not appear to be quite satisfied with his own argument, for he goes on to advance an alternative view: if the names of the letters should prove to be really Semitic in origin, then, he urges, they must clearly have been imported into Greece at a later date.

<sup>3</sup> *Op. cit.*, pp. 129–130.

in Semitic, and no meaning in Greek, therefore they are Semitic words adapted into Greek. This is, however, a *non sequitur*. It would be more probable that the *borrowing* nation should cast about for words similar in sound, and possessing a meaning which would make the names of the letters easily remembered. Such an attempt would be sure to be unsuccessful in some cases; and in point of fact there are several letter-names in the Semitic alphabet to which the tortures of the Inquisition have to be applied before a meaning can be extracted from them through Semitic. It may thus be that all the letter-names are a heritage from some pre-Hellenic, non-Semitic language....." It would be difficult to find a better example of the fallacious kind of argument which the scholastic logicians termed *ignotum per ignotius*: because a few of the Semitic letter-names are unintelligible through Semitic, therefore the whole Greek alphabet, it is conjectured, finds its true interpretation in some hypothetical pre-Hellenic language! Nor is it easy to believe that the Phoenicians, having succeeded in converting seventeen of the Greek names into sufficiently good Semitic words, would have allowed themselves to be baffled by the remaining five; the theory admits that they were ready to be contented with the *à peu près*, since DUSSAUD, for his own purposes, lays some emphasis upon the form *tamed*, which was adopted for the letter  $\aleph$ , though "ox-goad," in Phoenician, was not *tamed* but *malmed* or *malmed*<sup>1</sup>. Sir Arthur EVANS, who acknowledges that the still intelligible Semitic letter-names refer to intentional likenesses between the objects they denote and the corresponding letter-forms, thinks that they are translations of the Aegean names, while the names that have no meaning in Phoenician are regarded by him as the original Aegean names left untranslated<sup>2</sup>. But, if such a very conscious act as that of translation is assumed, why were the names unintelligible in Phoenician not translated together with the rest?

The truth is not always simple, and the example of the alternative names of *n* and *z* suffices to show that the details in the present problem are undoubtedly complex. Nevertheless, as regards the letter-names *as a whole*, the only course that looks promising is the obvious and straightforward one of accepting their Semitic appearance at its face value, in which case they represent the original Semitic words that determined both the forms and the sounds of the proto-Semitic characters. And as on this view a single principle underlies the entire alphabet, so too a single reason, namely the antiquity of the proto-Semitic alphabet, accounts for those visible or latent deviations from the original schemes which existed in later times. The acrophonic principle at once explains certain attested forms of **N**, **Z**, **T**, **I**, **D**, **ת**, **ד**, **שׁ** and **רָ**, and the principle is not disproved by the fact that a few of the resemblances may be fortuitous, or by the fact that a few of the names may have been varied so as to accord better with the later shapes of the signs to which they belong. Until new evidence demands a different view, we are obliged to explain the lack of agreement between form and name in the case of *gaml*, *zain*, *yôd*, *semk* and *rôsh* as due to the natural deterioration of the forms, almost inevitable in the long lapse of time<sup>3</sup>. As to

<sup>1</sup> DUSSAUD, *op. cit.*, p. 87.

<sup>2</sup> EVANS, *op. cit.*, vol. I, p. 94.

<sup>3</sup> So far as *rôsh* is concerned the mode of degradation in the Phoenician form will become very apparent when the head-sign of the new Sinaitic script (see below) is examined; the line of the back of the head has been lengthened and straightened, and the face has become a small triangle at its upper end.

the unintelligible names *hē*, *hēt*, *tēt*, *sādē* and *qof*, the meaning of these being unknown, it is impossible to tell whether or not the forms of the signs correspond in any way. It is the business of the philologist to account for these five names, the obscurity of which may be due to corruption, to false analogy, to their having become obsolete or to a variety of other causes. But if the philologist fails to enlighten us concerning them, we ought not therefore to throw overboard the conclusions acquired by our investigation of a large majority of the names; we ought rather to infer that the recalcitrant names, in the light of better evidence, would be seen to conform to the same general principle as the rest, and we ought to regard them as the residuum of unexplained fact that is seldom absent from any good theory.

I have hitherto made but little reference to the letter-names in Ethiopic; but they too form a powerful argument in favour of the thesis here upheld. In the Table I have quoted the Ethiopic forms from DILLEMANN-BEZOLD, *Grammatik der äthiopischen Sprache*, 1899. The names corresponding to **ن**, **ت**, **ل**, **د**, **ر**, **س**, **م**, **ب**, **ف**, **ي**, **غ**, **ه** and **و** show a close, or fairly close, similarity to their Graeco-Hebraic equivalents; the names for **د**, **د** and **ת** have been altered into the Ethiopic forms of these words, with the curious result in the case of **د** that the name (*af*) now no longer begins with the required alphabetic sound; *lāwī* is clearly assimilated to *wāwī* and *tōwt*, and *shāt* to *hānt*. The additional letters may be disregarded, so that there remain but *yamās* and *nahās* to be discussed: the former means "right hand" and is an approximate synonym substituted for *yōd*; the latter has been compared with Hebrew **וְנַחַשׁ** *nāħash* "snake," a comparison of which NÖLDEKE seems to approve, though he points out that the Ethiopic ought then to have *h* instead of the weaker *h*. NÖLDEKE attaches great weight to the fact that the triliteral names in Ethiopic (*alf*, *gaml* and *dent*) are monosyllabic, thus agreeing with the Greek as against the later Hebrew forms; from this and from other considerations he makes the important deduction that the Ethiopic letter-names were taken over from the Sabaeans, which amounts to an admission that the names are as old as the common parent of the Greek, Phoenician and South-Semitic alphabets.

An additional argument for the high antiquity of the letter-names is to be found in the vocalic values attached by the Greeks to the Phoenician letters *alf*, *hē*, *lēth* and *wāw*. It is natural that *yōd* and *wāw* should have given rise to the Greek values *i* and *u*, since these are phonetically related to the Phoenician consonantal values; but the only explanation which I have discovered for the transformation of Phoenician *'* into Greek *a*, of Phoenician *h* into *e(η)*, of Phoenician *h* into *η* (so already at Thera beside the value of *spiritus asper*), and of Phoenician *'* into *o(ω)* is in a casual remark made by PRATORIUS in his essay on the origin of the Canaanite alphabet. He there points out that the *a*-sound attributed in Greek to the Phoenician letter **ף** may be due to the vocalization *'alf* of the name of that letter. The same observation applies to the other three letters as well: the Greeks had no use for the gutturals **ن**, **ت** and **ي**, and but little use for the guttural **ه**; if they took over the letter-name at the same time as they took over the actual letters, is it not natural that they should have ignored, or possibly have failed to hear, the initial guttural in these; and that they should have adopted the following vowel as the letter-value? Thus on the acrophonic principle itself **ن** = (')*alf* would yield *a*, **ت** = (*h*)*e* would yield *e* or *η*, and **ي** = (*h*)*et*

would yield ē. The value o or œ for γ = (‘)ain seems at first to contradict this view but when we remember that emphatic sounds tend to give to a the colouring of ɔ' it will be seen to be quite plausible that ‘ain may have sounded to the Greeks like œuv, and may consequently have produced the letter-value o. The conclusion, therefore, which I would draw from the vocalic values of Σ, Τ, Τ and γ in Greek is that the letter-names were already in use when those values were determined.

Thus the advanced view of the proto-Semitic alphabet formulated by PRATORIUS leads us back directly to the conservative view of the letter-names formerly advocated by LENORMANT and still accepted with but few reserves by KAUTZSCH<sup>1</sup>. We may now proceed to the discussion of the problem enounced at the beginning of this paper; it being unthinkable that the alphabet should have come into existence without some precursor of a more primitive type, the question arises as to the country in which the foreign model has to be sought. Since, if we may trust the argumentation of the last few paragraphs, that model must necessarily have been a pictorial or hieroglyphic script, the Cyprian syllabary and similar sources may be ruled out of court at once. The Babylonian cuneiform is an equally impossible source, having lost all but the memory of its pictographic origin long before 2000 B.C. There remain the Minoan scripts, the Phaestos disk, the Hittite writing and the Egyptian hieroglyphs. Of the first two I will say little more than that Sir Arthur EVANS' tables of comparisons are described by Prof. Stewart MACALISTER as "not very satisfactory," and had the equivalences with the signs of the Phaestos disk been more convincing, they would hardly have escaped the notice of so acute and ingenious a scholar as Sir Arthur EVANS. It is, however, needful to add that the development of the Cretan linear out of the Cretan pictographs must, at all events, provide an important analogy for the development of Phoenician, Greek and Sabaean out of the assumed pictorial proto-Semitic script<sup>2</sup>.

The Hittite hieroglyphs lacking a champion<sup>3</sup>, we are thrown back on the old theory which ascribes to the Semitic alphabet an Egyptian origin. The obvious objection to LENORMANT's list of comparisons is that the Egyptian hieroglyphs presented too wide a field to choose from; within that field it would be easy to find resemblances, and those resemblances might accordingly be accidental. If LENORMANT's argument is thus not cogent, yet the instinct which prompted it was none the less a sound one; there are several almost decisive reasons which indicate Egypt as the school where the Semites learnt to write. (1) First of all, its geographical position with Syria to the north-east and Arabia to the east and south-east is more favourable than that of any other country. (2) In the second place it is now clear that a longer time than was formerly imagined must be allowed for the divergence of the Phoenician, Greek

<sup>1</sup> BROCKELMANN, *Grundriss der vergl. Grammatik der semit. Sprachen*, 1 § 74, d, β, γ, quotes such examples as Maltese *għarrha* = Arab. ‘ashra “twenty.”

<sup>2</sup> GEMENIUS-KAUTZSCH, *op. cit.*, p. 28, § 5e.

<sup>3</sup> If the argument of this paper be sound, and if, as Sir Arthur EVANS is inclined to believe, the Cretan pictographs were influenced by the Egyptian hieroglyphs, the relationship of the Semitic alphabets to the Cretan script will have been, not the relationship of children to a parent, but that of cousins to one another.

\* At the last moment I see from F. LAREZI, *Handbuch der griechischen Epigraphik*, vol. 1, p. 336, that Eduard MEYER was (in 1893) inclined to favour this possibility, though admitting that the principle of a purely consonantal alphabet must have been derived from the Egyptian hieroglyphs.

and Sabaean characters from their common prototypes. The reduction of the signs to linear forms and certain small modifications might indeed have been rapidly effected, but the spread of a system of writing to widely distant areas, in each of which it assumed a stereotyped local physiognomy, must have been a matter of centuries. At the lowest estimate we cannot place the emergence of the proto-Semitic script later than 1100 B.C. But the further back we go, the less likelihood there is of any influence in Syria or the outlying desert tracts except that of Egypt or Babylonia; and since Babylonian cuneiform cannot have been the parent of the Semitic writing, Egypt seems to present the only possibility. (3) Thirdly, the alphabetic and non-vocalic character of the writing is of great importance. The Babylonian and Mediterranean (e.g. Cypriote) scripts, so far as they are known, were syllabic and non-alphabetic, and the proto-Semitic script, if derived from any of them, might therefore have been expected to follow suit<sup>1</sup>. The Egyptian hieroglyphic system eschews vowels, and comprises a full alphabet of consonants besides its bimortal and trilateral signs. The omission of the vowels in Egyptian was undoubtedly due in part to the special nature of the language, and the Semitic languages are very similar; still, there was another important reason that was operative in the case of Egypt, namely the particular manner in which it derived its phonetic signs out of its ideographic writing<sup>2</sup>. (4) Fourthly and lastly there is the principle of acrophony. This is not really the principle by which the values of the Egyptian phonetic signs were fixed, but in the case of the alphabetic signs it may well have seemed to be so. Such, at least, would be a very natural way of explaining the derivation of Egyptian  *r* from *rw'* "a mouth" or of Egyptian  *p* from *poy* "a stool."

At this point we have reached the uttermost limit to which the balancing of probabilities can carry us; it has now to be seen whether the new evidence admits of further progress in the direction of certainty.

The chief meeting-places of Egyptian and Semite, prior to the rise of the Egyptian empire in Syria, were the Lebanon and the Sinaitic peninsula. No memorials of the envoys of the Pharaohs have been discovered either in the Lebanon or at its port of Byblos; but in the mining-districts of Sinai, whence the highly prized turquoise was fetched, there are abundant hieroglyphic records dating from the First down to the Twentieth Dynasty. The number of these records was largely increased by the *Egypt Exploration Fund* expedition of 1905 under Professor PETRIE, most of the new accessions coming from the site of Serabit el-Khadim, where the Egyptians had built a temple to some local goddess whom they honoured under the name of their own goddess Hathor. Among the new monuments discovered was a series of ten, bearing inscriptions

<sup>1</sup> The Persian cuneiform is not a valid negative instance, since the knowledge of the Greek and Aramaic alphabets may well have influenced its formation.

<sup>2</sup> In my article on *The Nature and Development of the Egyptian Hieroglyphic Writing* in *The Journal of Egyptian Archaeology*, vol. II (1915), pp. 61–75, I have tried to indicate the extent to which the development of the phonetic signs was facilitated by the disregard of the vowels.—The present paper was already in print when H. SCHÄFER's article entitled *Die Vokallosigkeit des phönizischen Alphabets*, in *Zeitschrift für ägyptische Sprache*, vol. 52 (1915), pp. 93–98, came under my notice; Professor SCHÄFER there deals with the lack of vowels in Phoenician writing much more fully than I have been able to do here, arriving, by means of very much the same reasoning, at the identical conclusion.



The Inscriptions in the New Sinaitic Script

47

in an unknown script, which at first sight appeared to consist of roughly graven Egyptian hieroglyphs, but on a closer inspection revealed the presence of signs not belonging to any known Egyptian style of writing. See Plates III to V, with the Frontispiece.

A short inscription previously published from a squeeze by M. WEILL<sup>1</sup> brings the total up to eleven. Before proceeding further, it is desirable to pass these monuments in review, so as to obtain some idea of their nature and probable date. In the first place there are seven much battered stelae (nos. 349—355), which were carved in the rock near a mine about a mile and a half to the west of the temple; they have rounded tops like ordinary Egyptian stelae, with characters running sometimes in vertical columns, and sometimes in horizontal lines. In one case (no. 351) the right-hand portion of the field is occupied by a representation of the god Ptah in his shrine, while two lines of inscription fill the left-hand portion. In the temple were found two crudely executed squatting figures (nos. 346, 347), the one with three signs on the front and the other with an irregular text both on front and side. There is also a sphinx of small size (no. 345) with an illegible<sup>2</sup> Horus-name between the paws and the Egyptian words "beloved of Hathor, [lady of] the turquoise" on the shoulder; to each side of the body on the upper surface of the base are some of the unknown characters. M. WEILL's inscription (no. 348) is but a fragment.

Practically all these monuments show strong signs of Egyptian influence, though they may well be, as Professor PETRIE says, of non-Egyptian workmanship. Any suggestion to the effect that the signs are later than the rest of the monuments can be instantly dismissed. They are therefore undoubtedly all of Pharaonic date; on this point I quote Professor PETRIE<sup>3</sup>:—"The only indication of date that I could find at the mine, L, was a bit of buff pottery with the red and black stripe which we know to be characteristic of the time of Tahutmes III, and perhaps rather earlier, but not later. The figure, fig. 138 (i.e. no. 346, A.M.O.) was found at the doorway of the shrine of Sopdu, which was built by Hatshepsut. The sphinx is of a red sandstone which was used by Tahutmes III, and not at other times.....Each of these facts is not conclusive by itself, but they all agree, and we are bound to accept this writing as being of about 1500 B.C."

This conclusion may be correct, but I am by no means convinced that the end of the Twelfth Dynasty would not be a more probable date. In the volumes dealing with the results of the Expedition to be published by Mr PEET and myself we shall show that the shrine of Sopdu dates back as far as this. Beside an isolated stele<sup>4</sup> in the neighbouring Wādy Nasb, cut in the 20th year of Amenemmes III, there is added the sign of an ox's head, not unlike that found in the unknown script. In the Middle Kingdom examples at Serabit el-Khadim Ptah is always represented in his shrine; the later style of depiction is different<sup>5</sup>. Lastly, it is on the hieroglyphic stelae of the reign of Amenemmes III alone that we read of Semites (Rethenu-people or 'A'amu) taking

<sup>1</sup> *Recueil des inscriptions égyptiennes du Sinaï*, Paris, 1904, p. 154, no. 41. The squeeze is definitely marked as referring to an inscription at Maghārah.

<sup>2</sup> The Expedition copy shows a name which Professor PETRIE reads as that of Snofru, an early king who was later worshipped in Sinai. This interpretation is very doubtful, and the original in the British Museum is quite illegible. None the less I have reproduced Professor PETRIE's copy in Plate III.

<sup>3</sup> *Researches in Sinai*, London, 1906, p. 131.

<sup>4</sup> No. 46 of our forthcoming work.

<sup>5</sup> So in the reigns of Amenemmes III or IV, nos. 124, 125, 126 and 140. In the three instances dating from the New Kingdom (nos. 114, 120 and 249) the shrine is absent.

part in the Egyptian expeditions<sup>1</sup>. These indications, however, must be admitted not to amount to very much.

Before proceeding further one important point must be emphasized: it is to the last degree improbable that the monuments bearing the new script are the work of the indigenous Semitic nomads who have eked out a bare existence in the Simeitic peninsula since time immemorial. There can be little or no doubt that the monuments are due to strangers from other parts who accompanied the Egyptians on their expeditions, though these strangers may not have come farther than from Palestine or from the *Hinterland of Syria*. Were the new inscriptions indigenous, they would undoubtedly have been more numerous than they are; nor should we have expected to find them in the temple or in the neighbourhood of a mine.

To turn to the inscriptions themselves: they are not in Egyptian hieroglyphic, yet many of the signs are obviously borrowed from that source. There are the human head ☰, the ox's head ☱, and the human eye ☲, the very signs postulated by LENORMANT as the originals of proto-Semitic *rōsh* ☲, *'alf* ☱ and *'ain* ☳. There is the zigzag ☴, which we are sorely tempted to connect with ☱ *mām* "water." There is one instance of a hand (no. 349), which might be *yōd*; the fish and snake, recalling ☴ and ☵, are alternative candidates for the value ☷ (*nūn* or *nahūs*). Finally, there are some other signs which have Egyptian analogies, ☴, ☵ and ☶, but which cannot as yet be identified with letters of the proto-Semitic alphabet.

The trend of my argument is now clear. Have we not, in this unknown script, something strangely like the long-sought proto-Semitic script? Looking closer, we discern signs foreign to the Egyptian hieroglyphs, but answering well to the names or forms of proto-Semitic letters. Such are ☷, precisely similar to Semitic ☣ for ☱ *tau*, "a mark" or "cross," very common in the inscriptions, corresponding to the frequency of ☱ in Semitic as an inflectional element; ☷ or ☷ or ☷ provides a suitable equivalent for ☲ *bēt* "house," Sabaeon ☷; ☷ may be compared with forms of ☲ *lām* which run through all the different alphabets; ☷ or ☷ might be equated to the Semitic forms of ☷ *zām* or *zāin*. Without having much faith in them I have added to my table of comparisons ☵ = ☲ = Phoenician *y*, ☷ = ☱ = Sabaeon *O*, and ☶ = ☷ = Semitic *w*, ☷.

In comparing the forms of some of the individual picture-signs with their earliest Semitic equivalents we can hardly fail to be struck with the ease with which the transition from the one to the other could be effected. The comparison may be left to the reader in the cases of the ox-head, the human head and the water-sign; but in the case of the human eye it is worth pointing out that the necessary step of the omission of the pupil has already been accomplished on the statue no. 346.

The inscriptions are too fragmentary for any very serious attempts at consecutive reading. There is, however, one sequence of four letters that recurs five, if not six times, as the following facsimiles show:—

<sup>1</sup> Nos. 24, 85, 87, 92, 110, 112, 113. On several of these a brother of the prince of Rethem, by name *Ybadd* or *Ybadda*, is mentioned, and it is perhaps not fantastic to conjecture that some of the stelae were dedicated by him or by members of his staff.

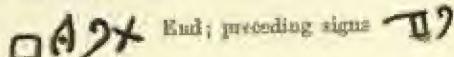
No. 348



Apparently end; note that the second sign here differs considerably. The preceding signs are



No. 345 (the sphinx)



No. 352



End; preceding signs lost

\* The projecting part of this sign may be wrongly copied; the photograph suggests that it may belong to the sign of the fish immediately to the right.

No. 353



End; preceding the group are the signs



No. 354



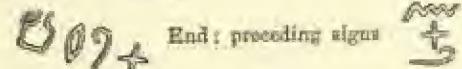
End; preceding are the signs



No. 346 (the statue)



Note the upright form of the eye.



End; preceding signs



Note the eye without pupil.

It may be fairly assumed that the vertical signs read from top to bottom; and it would therefore follow that the horizontal equivalents read from left to right. [The signs representing parts of human beings or animals can however, in other inscriptions, face either way, though always consequently on the same monument; some inscriptions may therefore read from right to left.] The variation of the signs that precede seems to mark off the four letters as a single word. Now all the signs in this word have been identified with letters in the proto-Semitic alphabet, and in consequence this, when written like a Hebrew word, would read בָּאַלָּת = Ba'alat = Badatris. What more probable than that the word recurring in five or six different inscriptions should be the name of the local goddess, that is rarely omitted, in its Egyptian form of Hathor, from any of the hieroglyphic texts from the same site? And what more probable than that this goddess, who was known to the Egyptian visitors as Hathor, should have been called "the female Ba'al" by their Semitic colleagues? It is significant that the name of Hathor is written in hieroglyphs on the sphinx, one of the sources of our supposed word Ba'alat (see above), and that the stele with the picture of Ptah is not one of the sources. Unfortunately, however, I have no suggestions for the reading of any other word, so that the decipherment of the name Ba'alat must remain, so far as I am concerned, an unverifiable hypothesis<sup>1</sup>.

<sup>1</sup> Cf. Isia-Astarte-Belit on the Phoenician stele of Byblos. The goddess of Byblos was very familiar to the Egyptians under the name of Hathor.

\* Since these words were written I have received from Dr Cowley some extremely valuable conjectures made by himself and by Professor SATZKE; and I learn with the greatest pleasure that

## 16 THE EGYPTIAN ORIGIN OF THE SEMITIC ALPHABET

In the eleven inscriptions some hundred and fifty signs are legible in all. From among these I have been able to find only thirty-two different types, of which several are probably duplicates. There is not much likelihood of many signs being missing, in view of the extent of our material; and that being so, the case for the alphabetic character of the unknown script is overwhelming. Of the seventeen intelligible names of the letters in the proto-Semitic alphabet, six, namely the ox, house, water, eye, head and cross, apply perfectly to signs in the new script, and there are several less convincing comparisons. Among the more greatly linearized signs, the correspondences of form suggested for  $\text{ל}$ ,  $\text{ד}$  and  $\text{ב}$  are fairly satisfactory.

The ill-success that has attended most comparisons of scripts urges caution, and I am disposed therefore rather to underestimate than to overstate my case. It must be admitted that there are a number of signs in the new writing that bear no resemblance to any surviving Semitic shapes. This fact is so much to the bad; on the credit side of the account I may claim to have a proportion of valuable assets that has not been equalled in any previous theory put forward to account for the origin of the Semitic scripts.

Apart from Professor PETRIE's verdict that the unknown Sinaitic writing represents "one of the many alphabets which were in use in the Mediterranean lands long before the fixed alphabet selected by the Phoenicians," the published opinions on it have been based solely on the three photographs printed in *Researches in Sinai*. The Rev. C. J. BALL, in seeking to explain<sup>1</sup> the signs on statue no. 346 as an early example of Phoenician writing, has rightly felt that a connexion of some kind with the proto-Semitic script was inevitable. E. J. PILCHER's contention<sup>2</sup> that these monuments are mere meaningless imitations of Egyptian stelae and statues cannot be seriously entertained; it is rejected by Professor SAYCE<sup>3</sup>, whose own comparison with certain Upper Egyptian quarry-marks affords no help.

Thus we have to face the fact that, at all events not later than 1500 B.C., there existed in Sinai, i.e. on Semitic soil, a form of writing almost certainly alphabetic in character and clearly modelled on the Egyptian hieroglyphs. Exception may perhaps be taken to the detailed comparisons of signs that have here been made, but if the new Sinaitic script is not the particular script from which the Phoenician and the South-Semitic alphabets are descended I can see no alternative to regarding it as a tentative essay in that direction, which at all events constitutes a good analogy upon which the Egyptian hypothesis can be argued. The common parent of the Phoenician, the Greek and the Sabean may have been one out of several more or less plastic local varieties of alphabet, all developing on the aerophonic principle under the influence of the Egyptian hieroglyphs. Further speculation as to details is hardly likely to prove fruitful, in the lack of more decisive evidence.

Dr COWLEY has consented to append a note upon these.—I regret to have overlooked an article by Professor SAYCE in *Proc. S.B.A.*, vol. xxxii (1910), pp. 215—222, dealing with *The Origin of the Phoenician Alphabet*, where much the same view was taken of the letter-names as that defended here.

<sup>1</sup> *Researches in Sinai*, p. 131.

<sup>2</sup> C. J. BALL, *A Phoenician Inscription of B.C. 1500*, in *Proc. S.B.A.*, vol. xxx (1908), p. 243.

<sup>3</sup> E. J. PILCHER, *The writings at Sinai*; *ibid.*, vol. xxxii (1910), pp. 38—41.

<sup>4</sup> A. H. SAYCE, *ibid.*, p. 132.



346, Front



346, Right side



349



351

STATUE FROM TEMPLE, AND ROCK STELA  
FROM MINE





352



350



355



353



354

ROCK-STELAE

N. B. The fragments of 354, here juxtaposed, are from two different negatives; for a reconstruction of the whole, see the hind-scopy in *Plate III*.



## THE ORIGIN OF THE SEMITIC ALPHABET

BY A. E. COWLEY, D.LITT.

It is with some hesitation that I venture to write the following notes on Dr Gardiner's interesting discovery. He kindly communicated it to me some little time ago and allowed me to discuss it with Prof. Sayce. We agreed on many points, but Prof. Sayce must not be held responsible for all my remarks. Unfortunately he is abroad so that it has not been possible to consult him on some points, as I should wish. We are quite aware that some of our suggestions are very uncertain, and that further material is needed for their proof. Yet it seemed worth while to make them, if only to stir up enquiry. The difficulties are many. The monuments are few, and those so fragmentary that there is no help to be gained from context. To identify isolated words is always dangerous. Then, if the date of the inscriptions is about 1500 B.C. as Petrie says, or 12th Dynasty, as Gardiner, what form of Semitic is to be expected in them? If it is the language of 'Palestine or the *Hinterland of Syria*' (above, p. 14) the nearest evidence for it is in the Canaanite glosses of the Tell el-Amarna tablets. But we get a very meagre outline of a language from these, especially as regards grammatical forms, and moreover they suffer from the defects of the cuneiform syllabary in which they are written. Accordingly we make the following suggestions with all reserve.

Dr Gardiner's ingenious identification of בָּעֵלֶת seems, for reasons which he has given, to be a sure foundation for further elucidation. The word occurs in nos. 345 (twice), 346 (front), 348, 352, 353, 354. We thus have four certain characters out of a total of 21 or 22. In 345 (right), 353, 354 the word is preceded by a sign which must be a determinative of 'goddess.' In 345 (left) and 346 (front) בָּעֵלֶת is preceded by the preposition הַ, and the determinative is omitted. Both these inscriptions read from left to right. On the other hand no. 349 reads from right to left. According to the usual rule it ought to read the other way, against the faces of the characters. But it seems to begin in the same way as no. 350, which must read downwards. In fact at the time when these monuments were inscribed, there was no fixed rule for the direction of this particular writing. Most often it is in vertical columns, but when horizontal it reads in the direction of the faces (Prof. Sayce notes the same peculiarity in Meroitic) either from right to left or from left to right. Note also that the tail of the הַ always points against the writing in 345, 346.

In 349 then the first sign is the ox-head (בָּעֵלֶת) which must be נַ, on the present theory. The next sign is broken, but it seems to be the snake (צְדִיקָה) which should

be 1. If this כְּנָס or כְּנָס could possibly be the pronoun *I*, it would suit the beginning of the inscription. The following word (וְכִנֵּן) would then be the name of the person who erected the monument. Line 2 begins with the head (שַׁרְאָה=ר), and בְּ (as in בְּגָלָת), then בְּנָבָן which can hardly be anything but נְנוּבָן (Sayce's suggestion), meaning in Hebrew the south of Palestine. The word בְּנָבָן was no doubt the skeikh of the Semites (Horites?) employed in the mines. Prof. Sayce thinks that the peculiar sign for 2 may be a camel's nose-ring, indicating, though not depicting, the camel (נְמֶל) which does not occur in Egyptian hieroglyphics. The word נְנוּבָן occurs also in 351, and in 350 where the middle sign is meant to be differentiated from the י.

In 345 (right) the first sign (Egyptian *n*) represents water (מְמֻם)=מְ. The first word נְנָדָה may be the Egyptian *mau* (Sayce) a lion or sphinx (on which the inscription is cut). The end is to be completed as elsewhere and the whole [בְּגָלָת] Det. נְנָדָה means 'the sphinx of the goddess.' On the left side the first word is broken, but it seems to begin with בְּ. It is tempting to suggest נְנוּבָן as in the next number, but the photograph hardly bears this out. The whole is נְנָדָה לְבָעֵלָת.

No. 346 (right), according to values already assigned, begins with נְנָם לְיַע meaning 'for the gratification of.' The next sign is most likely the head, ר, followed by בְּ. The remaining signs are crowded for want of space and their order is uncertain. If נְנָם לְיַע is right one would expect a god's name to follow. Prof. Sayce suggests some name like נְנָמָן. Perhaps however the whole is to be read נְנָם רְבָן נְנָבָן לְיַע, and the final י represents the nunation at this early date (cf. 349 l. 2). Then either נְנָם לְיַע must mean 'in honour of' or נְנָמָן must be a proper name.

The lower part of 346 (front) was read by Ball (*PSBA* xxx, p. 243) as Phoenician. His interpretation is now shown to be impossible because it does not suit the other occurrences of the word בְּגָלָת. Moreover there is a clear line dividing the end of the right-hand column from the horizontal signs. The inscription really consists of two columns, of which that on the left is bent round at the end for want of space. If the rules as to horizontal writing apply to the order of the columns (against the tail of the ר, in the direction of the faces), the left-hand column should be read first. It seems to begin, as before, with [בְּגָלָת] נְנָם לְיַע. There is then room for one sign, or possibly two. It might be restored to something like שְׁלָמָה לְבָעֵלָת 'in favorem, pinaculum dominum.' There is of course no form שְׁלָמָה in Hebrew for 'peace-offering,' but it is a possible form, and would fit no. 354 also (see below). The right-hand column is not intelligible. One would expect the first character to be י (לְיַע) as in the two other columns. The third sign, the fish, is not דָן, since we already have the snake for 1, and though דָן is the usual word for fish in Assyrian, it only appears late in western Semitic. The biblical Hebrew is דָן, so that the fish should be ר. The fourth sign is uncertain on the photograph. The remaining letters are מְבָעֵת, of which we can offer no solution as yet. At the end is a line dividing לְיַע from לְתָה.

No. 347 reads פְּנָתָה. Prof. Sayce objects that the goddess Tanith appears only in late Punic inscriptions. As there is no other way of reading the characters, perhaps they are to be vocalised otherwise, and represent a personal name, not that of the goddess.

In no. 348 the first sign is the bow (קַשְׁתָּה)=**ק**, then **נ**, then a sign which we take to be the tooth (שֶׁן)=**ש**. Prof. Sayce points out that the name of the goddess of Canaan is written K-t-sh or K-sh in Egyptian. The inscription therefore is קַשְׁתָּה בָּעֵלָה Det. 'K-t-sh (is) the goddess.' The form of the bow is the same as of that carried by the Aamu in the Beni-Hasan inscription.

No. 349 can now be transliterated a little more:

אֲנֹתִיךְ...רַבְ נָבֵן מְ...עַ...רְבָּ...מְ...אַחֲ...עַ...עַ

The third sign in line 3 looks like a hand (Gardiner, Sayce) and may be **ד** or **ת**.

Of no. 350 very little can be made out. It probably begins like 349, the third sign being really the cross and two lines. After the **ר** perhaps a foot, then **בָּתָה**, then a quite doubtful sign, then **נָבֵן** with a not very good **ג**. The second column may perhaps be restored as 345 (right). Cf. also 352, col. 3. The rest is lost, except for an isolated **ב**. Hence read: אֲנֹתִיךְ בָּתָה נָבֵן [בָּעֵלָה] Det. **נָבֵן** [בָּעֵלָה].

In 351 the first sign is not identified. The second is probably **נ**, then **ב** followed by a lacuna. Cf. the beginning of 353. As to the next group, **מְ** (also in 352, 349<sup>21</sup>), Prof. Sayce writes 'I believe it is the Egyptian Mafsa. In the Tell el-Amarna Egyptian names, *p* in the middle of a word disappears. I have long thought that the Sumerian Magan (classical Makna) was the Egyptian Mafsa.' The word is here followed by **נָבֵן**. Perhaps the two names are associated like Magan and Meluhha in cuneiform, where the latter is generally taken to be the Sinai peninsula. If this is to be so explained the lacuna must be filled with **בָּתָה** and the first three signs (**תְּבָ**) must be some word for 'erected,' 'engraved,' or a name. The last two signs in this column look (on the photograph) like the same sign repeated. Prof. Sayce thinks they are to be distinguished, and suggests **ת**. In the other column, the **ב** at the top is very uncertain. Nothing is left of any signs following it. At the bottom **תְּבָ**. The figure at the side represents Ptah, but his name can hardly have occurred in the inscription. It will be noted that, as the monument is dedicated to him, the feminine title **בָּעֵלָה** is not used on it.

In no. 352 the right-hand column is אֲנֹתִיךְ נָבֵן רַבְנָה. Of the unidentified signs the last may be a ligature. Column 2 is מְקֻעַנְתָּה קְתַלְבָנָה, unless the fish belongs to it (cf. no. 355). In col. 3 the lacuna may perhaps be filled as before בָּעֵלָה [Det. **נָבֵן**], if that can be a dedicatory formula. The meaning of the whole is obscure.

In no. 353 the beginning may be as in 351, the large second character being really two signs, not the determinative. After the **ב** there is a lacuna, then **מְ** as in 351, but it cannot here be the geographical name because it is followed by **ש** and the title. We must therefore divide the column thus Det. בָּעֵלָה קַשְׁתָּה בָּעֵלָה 'set up(?) to the honour(?) of K-sh, the goddess.' K-sh is the Canaanite goddess (Sayce). A deity (masculine!) שְׁרָם appears also to have belonged to the Edomites, cf. Schrader *KAT*<sup>2</sup>, p. 472. Hommel *Geogr.* p. 164, and the name קוֹשִׁיחָה i Chron. 15<sup>2</sup>. The lacuna may have contained **עַ**, cf. **נָעַם** **עַ** in 346. The second column contains no certain group. In col. 3 the beginning is broken, then a **ר** or **ש**, then **תְּבָ** **מְ**; cf. the end of 351. What follows seems from the photograph to be the double snake. If the snake is rightly copied in col. 2, these would be pointing the wrong way. But note that in

346 the tail of the snake points, as it would here, in the same direction as the tail of the ל. The next sign, which looks like ב, is rounded at the bottom (cf. the sign in col. 2) and is probably פ. The next, which is like a hand (כ), seems in the photograph to be meant for the determinative. The last sign may perhaps be the snake, some of the lines being unintentional scratches. The column may therefore be transliterated כ Det. טקְתָנָן עַל קְרָב.

In no. 354 the first sign is ש, and the column may be completed Det. שְׁלֵמָה בְּעֵלֶת (cf. on 346 front) but it is impossible to make out from the photograph whether this would fit.

In 355 the order of the signs is doubtful. On the right we have apparently מְנֻ, which might also be read in 352, but the snakes face the other way. The next sign is very like the Egyptian b. Perhaps it is מ (i.e. ח and ח). The remaining signs would then be חֲבָר or בְּחָר. Can this be the name Hbadd(m), see above, p. 14, note 1?

So far as we have obtained any results, they may be tabulated as follows:

א	ox, אָנָה	= א
ב, בְּ, בָּ	house, בֵּית	= בִּ
כּ, כְּ, כָּ	nose-ring	= כּ
דָּגָן	fish, דָּגָן	= דָּ (Cowley) ה
וֹ		= וֹ ?(Sayee)
זָ, =		= זָ ?(Gardiner)
חָ		= חָ ?(Cowley)
טָ		= טָ
וּ		= וּ ?(Sayee)
כּ		= כּ
לָ, לְ	goad	= לָ
מָ	water, מִים	= מִ
נָ	snake, נָחָשׁ	= נָ
סָ		= סָ
עָ, עְ, עָ	eye, עֵין	= עָ
		= עָ
קָ	bow, קִשְׁתָּה	= קָ
רָ	head, רָאשׁ	= רָ
שָׁ	tooth, שֵׁן	= שָׁ
תָּ	cross, תְּבִשָּׁה	= תָּ
פָּ	determinative of goddess.	= פָּ

Characters not identified:

 Perhaps a variant of the snake.

 " " " eye.

 " " a hand, ' or .







There are thus about 22 signs, as in the later 'Phoenician' alphabet. The words identified are:

 **בעלָה** goddess, 345, 346, 348, 350, 352 ?, 353, 354.

 **חֶבְרָה** ? pr. n. 355.

 **לָ** to, 345, 346.

 **מָאָ** sphinx (or offering ?), 345, 350 ?, 352 ?

 **מָקָ** Magan, 351, 353 ?

 **נָנוּבָ** S. Syria, 346 ?, 349, 350, 351, 352 ?

 **נָעַם** pleasure, 346.

 **עָלָ** to, for, 346, 353 ?

 **קָשָׁ** pr. n. 353.

 **קְתִּשָּׁ** pr. n. 348.

 **רָבָ** chief, 346, 349.

 **שְׁלָמָתָ** ? peace-offering, 346 ?, 354 ?

 **תְּנָתָ** pr. n. 347.

 **תְּהֵבָ** \* erected ?, 351, 353 ?

## MEROITIC STUDIES

By F. L. GRIFFITH

### *a. The Numerals.*

STUDENTS who may refer to my publications of Meroitic inscriptions will find very few signs registered as numerical. Such as there are however bear a general resemblance to Egyptian numerals, and this connexion is confirmed by the comparatively large series furnished by a collection of ostraca from Faras and Bubon<sup>1</sup> on the one hand and the great stela of Akinizaz and a fragmentary obelisk, both from Prof. Garstang's excavations, on the other<sup>2</sup>. The ostraca naturally deal with small numbers, but on the stela and obelisk quite high numbers are found. By observing carefully the grouping in different examples it becomes clear that the Meroitic numerals originated in the Egyptian<sup>3</sup>. Presumably like them they are on the decimal system, and in fact it is generally easy to decide whether individual signs represent units, tens, hundreds or thousands. But the forms are so much altered from the known forms of Egyptian cursive numerals that the latter are by no means clear guides to the Meroitic values, and purely arithmetical evidence is at present very scarce.

But some points can be ascertained at once. Excluding for the moment the ostraca, the lowest figures in other inscriptions are the units from 1 to 4, denoted by corresponding numbers of simple upright strokes I, II, III, IIII: beyond these we find 8 made in the same way IIIIIII in the great inscription at Kalabsha<sup>4</sup>, though doubtless a cipher was generally employed for 8 as for the other numbers above 4. The ostraca however, in which all sorts of small quantities would naturally be recorded, show groups of dots from 1 to 9 following the unit figures. Evidently these are divisions of the unit, and apparently decimal divisions; thus ::| would be 3·9. In one case (Far. Ostr. 28) eleven dots occur suggesting that they represent a division by twelve, but the arrangement ::| 9+2 is suspiciously like an addition of two dots for extra items not noted at first, and while nine dots occur several times there is no instance of ten. Above or after the dots we often find a symbol which must mean  $\frac{1}{2}$ . It is hardly likely that this notation represents a purely arithmetical system. It must rather be

<sup>1</sup> To be published in the memoir on the Oxford Excavations at Faras; those from Bubon were found in Randall-MacIver and Woolley's excavations for the University of Pennsylvania.

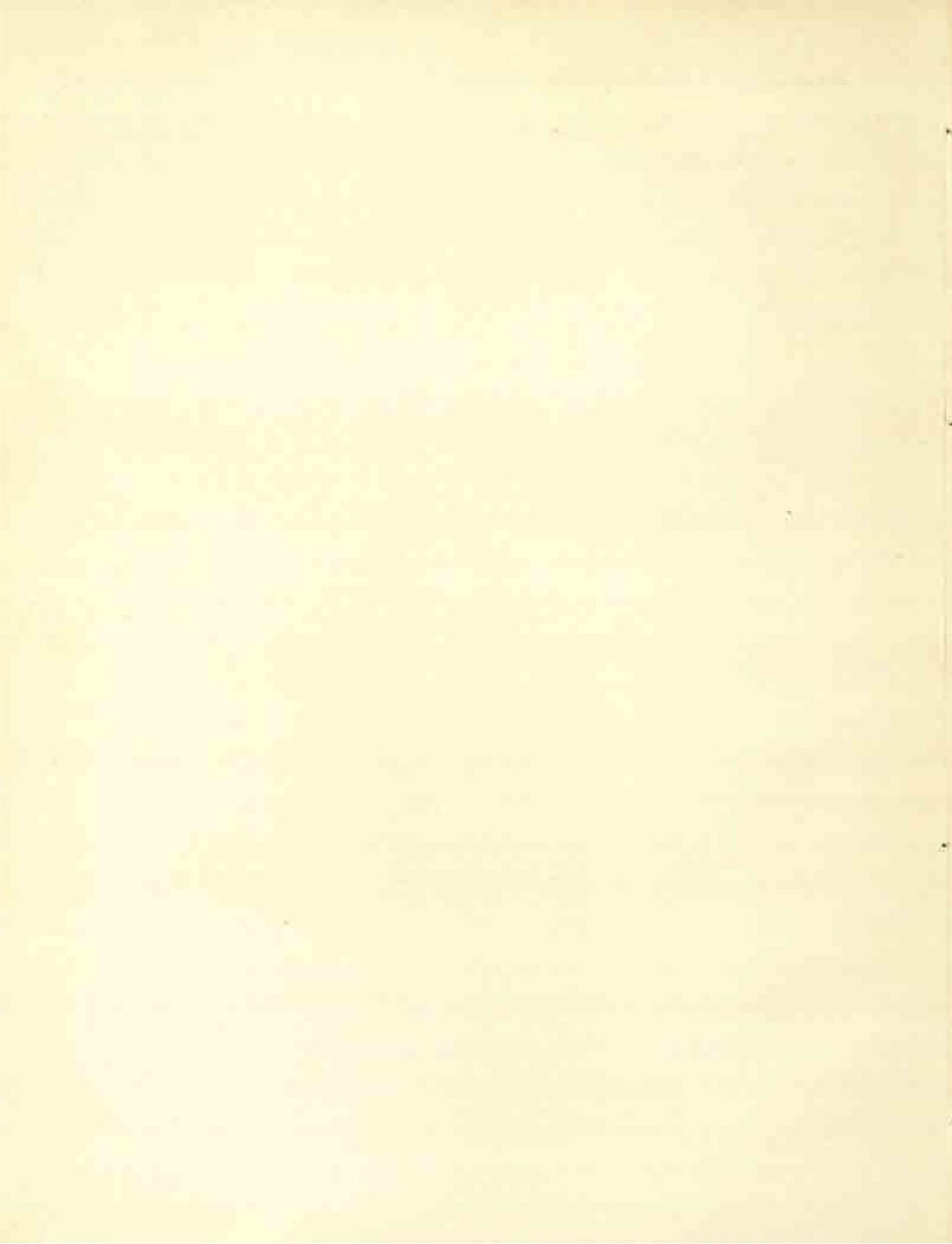
<sup>2</sup> The stela is published in the Liverpool *Annals of Archaeology*, vii, Pl. ix; Prof. Sayce generously lent me his copy of the obelisk fragments.

<sup>3</sup> No numerals exist in the scanty inscriptions written in Meroitic hieroglyphs.

<sup>4</sup> *Inscr.* 94/23.

Hierog. Numbs	Late hieratic cent. IV-VI			Aliform, hierat. cent. I-XIII			Early demotic cent. VIII-XI			Late demotic cent. XI-XVII			Meroitic (script)			Hierog. Hand-wrks			Late hieratic Aliform hier.			Early demotic cent. XI-XVII			Late demotic (script)			
	1	11	111	1	11	111	1	11	111	1	11	111	1	11	111	1	11	111	1	11	111	1	11	111	1	11	111	
1	I	II	III	1	II	III	1	II	III	1	II	III	1	II	III	1	II	III	1	II	III	1	II	III	1	II	III	
10	II	III	IV	10	II	III	10	II	III	10	II	III	10	II	III	10	II	III	10	II	III	10	II	III	10	II	III	
100	III	IV	V	100	III	IV	100	III	IV	100	III	IV	100	III	IV	100	III	IV	100	III	IV	100	III	IV	100	III	IV	
1000	IV	V	VI	1000	IV	V	1000	IV	V	1000	IV	V	1000	IV	V	1000	IV	V	1000	IV	V	1000	IV	V	1000	IV	V	
10000	V	VI	VI	10000	V	VI	10000	V	VI	10000	V	VI	10000	V	VI	10000	V	VI	10000	V	VI	10000	V	VI	10000	V	VI	
100000	VI	VI	VI	100000	VI	VI	100000	VI	VI	100000	VI	VI	100000	VI	VI	100000	VI	VI	100000	VI	VI	100000	VI	VI	100000	VI	VI	
1000000	VI	VI	VI	1000000	VI	VI	1000000	VI	VI	1000000	VI	VI	1000000	VI	VI	1000000	VI	VI	1000000	VI	VI	1000000	VI	VI	1000000	VI	VI	
10000000	VI	VI	VI	10000000	VI	VI	10000000	VI	VI	10000000	VI	VI	10000000	VI	VI	10000000	VI	VI	10000000	VI	VI	10000000	VI	VI	10000000	VI	VI	
100000000	VI	VI	VI	100000000	VI	VI	100000000	VI	VI	100000000	VI	VI	100000000	VI	VI	100000000	VI	VI	100000000	VI	VI	100000000	VI	VI	100000000	VI	VI	
1000000000	VI	VI	VI	1000000000	VI	VI	1000000000	VI	VI	1000000000	VI	VI	1000000000	VI	VI	1000000000	VI	VI	1000000000	VI	VI	1000000000	VI	VI	1000000000	VI	VI	
Tens																												
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10000000																												
100000000																												
1000000000																												
Groups of Meroitic numerals																												
1111 Hierak. 10 = 12																												
1111 Hierak. 9 = 54																												
1111 Hierak. 7 = 24																												
2111 Hierak. 5 = 135																												

The Meroitic Numerals.



metrical, the dot representing some unit of measure or weight which is  $\frac{1}{10}$  (or  $\frac{1}{2}$ ) of some other unit, and itself is commonly halved: the Egyptian *hin* or pint, a tenth of the *heqt* or bushel; or for weight the *kite*, a tenth of the *teben*, may be suggested. On the ostraca these figures and dots are accompanied sometimes by a peculiar symbol like an arrowhead; it may signify a unit such as the artaba or the *heqt*, or some principal article of Nubian produce or merchandise, such as corn or dates. The *āprāṣṇ* actually seems to occur several times on the ostraca of the middle period in the form *arbate*, and this explains satisfactorily the derived word *arebeto(n)ke* in a long Eg. demotic inscription (of later—third century—date) at Philae beginning:

"The adoration of Tamy<sup>1</sup> the (masc.) *arebeto(n)ke* of Isis, her before Isis of Philae and Pawebe (i.e. Abaton = Bige) the great goddess, the good Dame, the good Comfortress of a year productive of wealth, the mistress of heaven, earth and the underworld. I passed ten years as *arebetanke*, busied over the temple of Isis with the great *maaze*-measure; the measure was not diminished (?), and I made 20 *qyss* (?) each year. But in the tenth year" (things all changed).<sup>2</sup>

Thus so long as Tamy was *arebetanke* he was apparently in charge of the "great *maaze*" measure of Isis which would be kept in the temple of Philae and was probably standard for the whole of the Dodecaschoenus. *Arebetanke* (of which we fortunately have the Meroitic spelling on a tombstone from Aniba<sup>3</sup> of a man who held the same office at Shimalē, i.e. Ibrim, beyond the Dodecaschoenus) must therefore mean something like "keeper of the artaba." The various standards for artabas and the standard measures for the *maaze* (*μάζης*) and its multiples in Egypt are dealt with by Wilcken from Greek sources in his well-known works<sup>4</sup>.

The accompanying table shows the leading forms of the Egyptian numerals in different classes of the variable cursive writing of late times<sup>5</sup>, followed by a column in which the numerical signs of Meroitic cursive are arranged in an order that may be nearly correct. The comparison shows points of contact between Meroitic and Egyptian all along and in each column; but the signs in the Eg. demotic columns are further removed than the hieratic from the Meroitic, see especially 6 and 10 which are amongst the least doubtful. To anyone who has studied Egyptian palaeography I think that the cipher assigned to 20 would be the most interesting. It is very different from the ordinary forms of 20 in Eg. hieratic and demotic, but is almost identical with a peculiar form which characterises the period of Psammetichus I in hieratico-demotic (labelled "Rylands" in the table) and in "abnormal hieratic."<sup>6</sup> This is precisely the point in history at which the Egyptianising of Ethiopia, which had been active under the Twenty-fifth Dynasty, parted company from its source in Egypt, to resume a less close contact only from time to time. With the triumph of Psammetichus in Upper

<sup>1</sup> Perhaps to be vocalised Tembya, to judge by the Meroitic name *Maqol-tembye* below, p. 25.

<sup>2</sup> L. D. vi dem. no. 13, Bruxelles, Thes. 1000, cf. *Isae.* II, p. 46.

<sup>3</sup> *Kar.* 92.

<sup>4</sup> WILCKEN, *Ostraka*, I, 751, 770, *Grundriss*, p. LXVIII.

<sup>5</sup> See MÖLLEN, *Hieratische Paläographie*, Bd. III: BUCOSCH, *Numerorum apud veteres Aegyptios demoticorum doctrina*.

<sup>6</sup> See my *Catalogue of Demotic Papyri in the John Rylands Collection*, pp. 11–14, for the meaning of this term. Few of the documents in question have been published but the numerals are taken from photographs, etc., in my possession.

Egypt may have begun that gradual specialisation of the cursive writing in Nubia which was to end in the alphabetic script of the Meroites.

The values of the first four units and the symbols for 6 and 10 can hardly be questioned. Armed with these we can proceed to the examination of an inscription containing several numerals which is engraved in the chamber of Meroitic sculptures at Philae<sup>1</sup>. Here we have in succession (separated by words and phrases)

2—6—12—2—1—1—1—5 (?)—10,

the only doubtful value being the 5. These appear to fall into two groups  $2 \times 6 = 12$  and  $2 + 1 + 1 + 1 + 5 = 10$ , and that 10 and 12 may have similar functions here is shown by each closely following a word *atmi*, *tmi* of unknown meaning. It would be perhaps too rash to try to connect this word with the Egyptian word *tmt* "total," although Meroitic certainly borrowed much of the nomenclature of civilisation as well as its machinery from Egypt. The text evidently records gifts made by a member of the royal house to the temple of Philae through the official *Mashtaraq*: they seem to include "two large *shazarte* (each of?) six *z̄*...making *atmi-wes* 12; 2 *keñ*, 1 *arite-wil*, 1 *che* of Isis in Philae, 1 *che* of Isis in Tebawo (Abaton)...Isis nurse(?) of Horus, 5 *shazarte* in *z̄*, making(?) *keñ-tmi* 10; *keñ*, nurse(?) of Horus, a *che*" and so on but without any more figures.

This makes the value 5 for the sign in question probable. Two of the ostraca (Far. Ostr. 4, 7) show small numbers followed by a larger one at the end suggestive of a summation, but they do not confirm the values already gained or suggested; and indeed they cannot give a satisfactory result for both are imperfect.

On the other hand the funerary inscriptions compared with Eg. demotic graffiti give confirmation of the value 5 for the same sign. But this point cannot be properly dealt with except by a long digression.

#### b. Wise men of Ethiopia.

Various points of contact have been established between names, titles and descriptive phrases in the Meroitic inscriptions, especially in the north, and those in the graffiti of Ethiopian officials written in Egyptian hieroglyphic or demotic in the temples of Dakka and Philae. In fact these parallels have furnished some of the best means of progress in the decipherment. In the Meroitic funerary texts numerals are exceedingly rare: I know only of three texts which contain them, viz. a mutilated stela no. 44 from Faras, where various numerals appear to refer to the number of distinguished ancestors possessed by the deceased, and two stelae, *Kar.* 47 and *Inscr.* 89, on which the numeral supposed to be 5 is found in phrases 5-*nw*: *h-tek-ke-lf*: and 5-*ni*: *yeteke-lf*: which are not without resemblance to each other; the second of these phrases is accompanied by one with a further numeral which ought to read 34. It is to these last two that I desire now to draw special attention.

Among the titles and descriptions of persons in the Egyptian graffiti to which I have referred there is one series only (so far as I have observed) which includes numerals. It occurs thrice, once at Dakka and twice on the Hadrian gate at Philae, and in no case is easy to read or interpret.

<sup>1</sup> *Inscr.* 101.

(a) The first example is in a hieroglyphic graffiti in the name of "Harentyotf, son of Wayekiye (*Wygy*) and his mother Taësi, *qeret* of Isis, Agent of Isis in Philae and Tebawé, hereditary prince (*orpu*) of the foreign land of Takompso, sheikh (*htopei*) of the Thirty (?), royal scribe (?) of Cush, great wizard (or expert) in the cities of the south (?). . . . of Horns of 3 years (?) in . . . of the Burning Bull (i.e. the sun in the zenith ?), prophet of Sothis in reckoning the course of the moon, priest of the 5 Live Stars (i.e. planets), who reckons the time when the sun and moon rise<sup>1</sup> (?)."

(b) The second is in a demotic graffiti in the names of *Mentue* and Harentyotf, the prophets of Isis, *qeretis* and Agents of Isis, Agents of the king of Negro-land, hereditary princes of the foreign land of Takompso, sheikhs of the 30 . . . , royal scribes (?) of Cush, who reckon the risings of the 5 Live Stars and determine the time when the sun and moon take (?) the net (*sic*)<sup>2</sup>, who come yearly from Negro-land<sup>3</sup>.

(c) The third is in a demotic graffiti, dated in the seventh year of Severus Alexander (229 A.D.), in the name of "Wayekiye son of Harentyotf born of Tshepshewéri" praying for the favours of Isis for himself and for "Harentyotf the *qeret* of Isis," doubtless his father. He ends by describing himself as "prophet of Sothis, determining the risings of the moon, priest of the 5 Live Stars, sheikh of the royal book (?) of Cush".

The only numeral which is common to these three descriptions of persons is 5 in the expression "the 5 Live Stars," and it is obvious that the three instances are in the descriptions of members of a single family, in which the office connected with the planets may have been hereditary. Going back to the Meroitic funerary stelæ which show the same numeral we perceive that one of them, *Inscr.* 89, was found by Mr FIRTH at Medik on the southern border of the Dodecaschoenus, which frontier is named in the Egyptian inscriptions Takompso, and that the deceased actually bears the name of Wayekiye, not elsewhere known in Meroitic. Clearly this Wayekiye was one of the same wizard family of hereditary princes of Tacompso who are commemorated in the Egyptian graffiti. We may thus safely connect the Meroitic phrase with the Egyptian, at the same time observing the confirmation which the facts afford of the value 5 attributed to the Meroitic symbol.

### c. The Meroitic stela of Wayekiye.

This inscription now stands in need of a fresh commentary. The transcription is as follows<sup>4</sup>:

qé : Wyekiye-qé ;  
 Sipesi<sup>5</sup>ye{{-tē}} : Qōresmye : tze-mze-tē  
\*Hlēme : palmēš : yet-mze-lē ;  
 \*Miqētemēye : palmēš : Beze<sup>6</sup>we-tel : yet-mze-lē :

<sup>1</sup> BRUGSCH, *Thesaurus*, p. 1023, L. D. Text v, 65, CHAMPOLLION, *Not. descr.* I, 128. Amateur copies are in GAT, *Antiquités de la Nubie*, Pl. xiv, no. 45, and CHAMPOLLION, *Monuments*, LIII bis (copy by Vaucoleil). Cf. *Inscr.* p. 25.

<sup>2</sup> See below, p. 29.

<sup>3</sup> BRUGSCH, loc. p. 1023, L. D. vi dim. no. 8; cf. *Inscr.* p. 45.

<sup>4</sup> BRUGSCH, p. 1027, L. D. vi dim. no. 10; cf. *Inscr.* pp. 45-6.

<sup>5</sup> *Inscr.* 89, see *Inscr.* II, p. 18 for the original edition; some important changes of reading from the text as there printed will be observed.

Phème : \*qérefil-hl : yet-mze-lé :  
 Be'ke : piritel : yt-mze-lé :  
 Šnp\*tete-krérél : yet-mze-lé :  
 \*Mtewwi plinéš : szblit : yet-\*mze-lé :  
 plán : Qbñti : penn "5 ni : yetake-lé :  
 sér : qéré\*zeli : yréhete-lé :  
 penn : "34 n-kw : htke-lé :  
 "Wéši : Šéreyi : at-t-hm\*léle : yth-iā

\*The honourable Wayekiye; of the loving family of Shipeshiyo and Qéresmaya; kin of Khalème the strategus; kin of Maqél-teméye the strategus in Bezewe; kin of Pakhème the great qéreh; kin of Beke the Agent; kin of Shanapatete-krérél (or the akrér); kin of Matewawi the strategus of the navy (or land-forces?); chief priest of Qabañ, reckoning (?) the rising of the 5 stars; sheikh (?) of the royal book; determining the rising of the 34 stars.

"O Wéši, O Ashéri! grant to him all good things (?)."

A multitude of points of contact with Egyptian graffiti exist here, making possible a translation which I hope will be in the main convincing, though many details are doubtful, and the last words of the appeal to Isis and Osiris, which belong to the usual benedictions of funerary texts (form G), are merely guessed. I need not repeat the proofs of meaning for various words and expressions which can be found on reference to the indexes of my *Karunòg* and *Meroitic Inscriptions*.

The first thing to notice about the inscription is the large display of kin, often elsewhere the mark of a woman who could hold but few titles of her own. Wayekiye's personal description only begins after 7 phrases of kinship and consists of but 3 phrases, whereas usually some of a man's own titles precede all his relationships except his parentage. Clearly Wayekiye was in the position of a younger brother or poor relation. This corresponds exactly with the conditions indicated by the demotic graffiti (c) of Wayekiye. He bears only 3 or 4 titles, all astronomical, while his relations in their graffiti parade their territorial and administrative ranks in addition to their more scholarly qualifications. Moreover Wayekiye has a remarkable petition:

"Hear my cry, my great mistress Isis, and give me strength and readiness before my elder brothers, and give me favour and love and respect before the majesty of the kings."

We might perhaps be in doubt whether he was quarrelling with his powerful relations ("brothers" is of course a vague term) and needed the favour of Isis and of the Ethiopian court to support him, or merely wished humbly to serve them all in a capable way. But evidently they were a great consideration with him. Another point of agreement is that his titles, which with other people are put forth along with their names at the beginning of a graffito, are here added as a kind of afterthought at the end, precisely as on the Meroitic tombstone.

The second noticeable feature in the Meroitic is the absence of the usual parentage. The word *tse-mze-lé* which I have translated "of the loving family" occurs in *Far.* 20 where the father's name is given as usual but not the mother's, an unparalleled state of things unless we suppose that the phrase with the rare expression *tse-mzes-lo* is a substitute of some kind for the maternal relationship and means something like "of the loving family of Yibilité." Accordingly the short obscure and broken text *Kar.* 80

seems to be "Tabalab...; of the loving family of the *peshaté*; *shas[emazez]*....]." I therefore suppose that Shipeshiye and Qéresmaye were the mother and father of Wayekiye, either real or titular by adoption. I now proceed to comment in detail on names and words in order as they appear in the text.

Wayekiye is evidently the name which is written *Wygy* in demotic. As so often happens in Meroitic there is a form also with *n*, viz. "*Wynyy*, strategus of the water" in another graffiti<sup>1</sup>, and this suggests that the Nubian word for "star," in Old Nubian *wiñji*<sup>2</sup>, in Mahass *wiñji*, was furnished with the common ending *ye* to make a name in this astronomical family. The word *waye(n)ki*, meaning therefore something like "star," occurs again in the form *waye(n)kiye* in Far. 21.

From the many points of agreement between the Meroitic tombstone of Waye(n)kiye and the demotic graffiti (c) it seems exceedingly probable that they belong to one individual. The only difficulty is in the parentage. The demotic gives Harentyotf as father, Tshepshewére "the great Dame" as mother. In the Meroitic Shipeshi-ye must be Tshopshi "the Dame" omitting the epithet *wére* "great," unless the very common name-ending *ye* actually means "great," though confined in use to names: instead of the Egyptian name Harentyotf the father seems to be designated as Qéresma-ye, a similar formation from the title *qérə-su* "royal consort" or perhaps "royal friend." Designations of people by the plain title instead of naming them directly are frequent in the inscriptions, and we seem to see an exact parallel to the present case in the Philae graffiti *Inscr.* 95, 96, 121, 123, where the only designation is Apête-ye (from *apête* "envoy"), presumably replacing a more personal name.

"Chalémo the strategus" and "Maqél-temaze the strategus" are associated together on another stela at Medik (*Inscr.* 88), and are evidently the same as on ours, though the former is written with *ḥ* instead of *ḥ* and the ending of the latter name is apparently varied, as does sometimes happen. These names were wrongly read in *Inscr.* II, p. 18, and an inspection of the originals would be desirable to settle the readings. Khaléme (pron. Khalome?) is perhaps a Meroitic version of Pakhnüm or the like. Bezewi is probably the equivalent of Tacompso, on the frontier of Doduca-schoenus close to Medik<sup>3</sup>. Pakhème (very likely to be pronounced Pakhome<sup>4</sup>) is evidently the Egyptian name Pakhoum "the eagle," Παχούμ, which is common in the Egyptian graffiti of Philae; it occurs also in Far. 44. Beké seems to be the Egyptian *Bk*, *Bk* "Hawk" occurring at Philae<sup>5</sup>; it is common elsewhere as Phék, ΠΒήκης, and perhaps "Pbék son of Paësi, the *qérən* of Isis, the Agent of Isis" in demotic at Dakka<sup>6</sup> is the person in question.

Shanspatete seems to be connected with Shanspateli in *Inscr.* 133, and with "Sanupata high priest of Thoth" in demotic at Dakka<sup>7</sup>; for *krér* (*kror*) appended to a name cf. Πλωχκαρουρ (*Inscr.* I, p. 73) and perhaps Ηετενστις κρούρ at Dakka<sup>8</sup> besides Meroitic and demotic references in *Inscr.* etc. Matewawi is dealt with in *Inscr.* ad loc. As Manitawawi, apparently the same person, is entitled "strategus of the water" at Philae<sup>9</sup> I suggest the meaning "ships" here for *urb*.

<sup>1</sup> See *Inscr.* II, p. 38 and p. 46, no. 21.

<sup>2</sup> For Old Nubian words see Index 1 in my *Nubian Texts of the Christian period*.

<sup>3</sup> See Far. 21.

<sup>4</sup> A discussion of the vowels in Meroitic will appear later.

<sup>5</sup> L. D. VI dem. nos. 43, 57, 87.

<sup>6</sup> *Inscr.* p. 23.

<sup>7</sup> *Ib.*

<sup>6</sup> L. D. VI, Gr. 469, cf. 411.

<sup>8</sup> *Inscr.* 97, 105, II, p. 37.

We have now finished with Waye(n)kiye's high relations and arrive at his titles or personal descriptions. There would be little clue to their meaning without the evidence of the Egyptian texts. It is very unfortunate that although the latter are in triple version their reading and interpretation are still obscure in some details.

*pša* is clearly the Egyptian title of the high priest, in demotic *p-ntr-kn* (= *ἀρχεπεῖν*), pronounced *p-leshoni* and in Greek transcribed *λεωφύτης*. The next word is the genitive of *Qbā*, a word not found elsewhere, but an attractive comparison can be made with the Nubian plural *gumenki* which according to Almqvist is used in the Dongola dialect for "stars'" and would imply a singular *gumen*. *yeteke-lē* occurs in *Inscr.* 129/6 in an obscure and complicated phrase.

In the Egyptian graffiti we find in (a) and (c) "prophet of Sothis, . . . . . priest of the 5 Live Stars," in (b) simply "who reckon the risings of the 5 Live Stars" without mention of Sothis. (c) is our best authority and I am inclined to take *Qbā* as the name for Sothis, the most worshipful of the stars, regulator of the inundation and identified with Isis.

The next phrase in the Meroitic contains the word *qērē* "king," and *śfr* (*sor*) which precedes it is extraordinarily like the Nubian K. D. *sor*, Mah. *śo*, Old Nubian *śo(l)* "book," apparently derived from Egyptian *ś*, though whence the *r* was obtained is at present a mystery. The demotic contains the word for "king" *n-sw* in connexion with writing, and (c) seems actually to give "sheikh of the royal book of Cush," while (a), (b) appear to make two phrases of nearly the same words, speaking of "royal scribes." Another graffito with a similar title, imperfect "...royal book of Cush" or "...royal scribe of Cush," is equally indecisive.

The third and last phrase in the Meroitic is marked by a numeral which ought to read 34, accompanied by groups reminiscent of those in the first phrase.

First phrase penn : 5-ni : *yeteke-lē* :

Third phrase penn : 34-ñkw : *htke-lē* :

Here *ni* is equivalent to *ñ* as elsewhere, and *yeteke* is doubtless related to *htke*. Moreover from the phrase in *Kar.* 47 with the 5-number, *kzi : akw : 5-nw : htkekke szestel : mts-té*; we can select as parallel to the above the words *akw 5-nw htkekke* and guess the meaning of the whole of that phrase to be "belonging to the family (?) of the woman in Shazesh learned in the courses of the five planets." *Kar.* 47 is the tombstone of an important person named Chawitarér, who was *pesaté*-prince of Amiba, and the phrase just quoted is amongst the last of the eighteen or nineteen phrases in which his titles, rank and connexions are enumerated. Shazesh is perhaps the same as Shazés, the name of a place lying southward beyond the Second Cataract<sup>1</sup>; or we might read "the woman Shazestel" instead of "the woman in Shazesh."

The figure 34 is not so easy as 5 to explain in connexion with the calendar and astronomy. 38 decans or 24 hours would be obvious enough, but it is impossible to read a 6 here, and the form of the first figure is not probable for 20.

#### d. Ethiopian astronomy.

Mr. J. K. Fotheringham of Magdalen College has most kindly examined the question of these astronomical titles for possible interpretations, and is of opinion that

<sup>1</sup> Almqvist, *Nubische Studien* (ed. Zetterström) p. 212.

<sup>2</sup> L. D. vi dem. no. 20, Baugesen, *Thes.* 1630.

<sup>3</sup> *Kar.* p. 82.

the Waye(n)kiye family must have been in possession of a book of star-risings in which the number dealt with happened to be 34. They would doubtless have been originally calculated for Syene but could be adapted to any neighbouring place with little trouble. Such a book would certainly have made a great reputation for its possessor. Both Mr Fotheringham and Professor Turner thought of constellations to explain the number 34, but have failed to reach a result here. Mr Fotheringham has sent me the following note:

"I have searched in vain for any selection of 34 stars, and can only adhere to my suggestion that some unknown person had prepared a table for computing the risings of that number of stars.

"I think the risings are 'daily' not 'yearly' (1) because they include the Sun and Moon, (2) because daily risings are easily calculated from tables such as those given by Ptolemy, who did not prepare tables for computing yearly risings. The lists of yearly risings that have come down to us depend on observation, not on computation.

"I have no suggestion to explain the word 'net'<sup>1</sup> but I think it may very conceivably refer to eclipses. Predictions of these would be expected, and it is possible that the eclipsed or partially eclipsed sun or moon might be regarded as caught in 'a net'."

It might also be suggested that as "the time when the sun and moon take the net" in (b) is probably equivalent to "the time when the sun and moon rise" in (a), the former expression may be figurative or mythological for the blotting out of the stars, as if a net were cast over the waters of the heavens by the great luminaries and the stars drawn out. Neither Prof. Turner nor Mr Fotheringham consider it likely that "the net" can represent any practical device of ancient astronomy.

#### e. Meroitic datings.

The Ethiopian calendar is at present quite unknown. Within the Dodecaschoenus Egyptian graffiti of Ethiopians generally use Egyptian dating by Roman emperors. But a hieratic graffiti in red ink (copied by Brugsch on the staircase of the First Pylon at Philae<sup>2</sup>) is dated in the reign of an Ethiopian king of the later Ptolemaic or Roman age, and clearly implies that the Egyptian months were not in use by the Meroites at the time. On the other hand a demotic graffiti at Dakka dated in the reign of a Meroitic king with his mother employs the Egyptian calendar without comment<sup>3</sup>.

None of the great Meroitic inscriptions show dating in figures, and the Greek inscription of Sileo has no dating at all. Yet dates in figures do almost certainly occur in short inscriptions. Each of two pyramids at Meroe, near to each other, of similar style, and remarkable, according to Lepsius, for being the only two of which the sides were smoothed, bore a cursive inscription engraved in bold early characters on the east face to the left of the roof of the shrine. These inscriptions (now in Berlin) appeared after very careful examination of originals, squeezes and copies to have been identical except in one figure<sup>4</sup>.

Pyr. A 39, *Inscr.* 70 Zmkte-qé : hlb 3 [ai]me 4 ke-lw : qe-nšker-lé :

Pyr. A 31, *Inscr.* 64 Zmkte-qé : hlb 3 zime 24 ke-lw : qe-nšker-lé :

<sup>1</sup> Above, p. 25, (b).

<sup>2</sup> BRUGSCH, *Thes.* 1004-5, cf. *Inscr.* II, p. 34. I could find no trace of it in 1910.

<sup>3</sup> BRUGSCH, *Thes.* 1032, cf. *Inscr.* II, p. 25.

<sup>4</sup> Cf. L. D., *Text v.*, pp. 314, 318.

The omission of the figure 20 in a short and carefully executed inscription, which was evidently no mere graffiti but a record considered to be of importance, must be intentional. A 39 lies further back on the hill than A 31 and therefore was probably built before it. There seems no probable architectural explanation of the figures and we may well see in them the date of completion of the pyramid or some expression of time. We might suggest that A 39 was completed in 3 months and 4 days and A 31 in 3 months and 24 days, but as A 31 is smaller than A 39 this is not probable. It is much more likely that there was an interval of 20 years and that dates are expressed by the figures, e.g. "the third month of year 4," etc. The word *zime* (unless it be *zike*) which precedes the supposed year-number agrees almost exactly with the Nubian word for year, Old Nub. *jem*, *gem*, Ken. Dong. *jen*, Mah. *gem* "year."

The translation therefore seems to be somewhat thus:

"The honourable Zamakte; having finished (or dedicated) this in season (?) 3 year 4 (24 on Pyr. A 31)."

The inscription found by Professor Breasted on the smoothed face of a column in the hypostyle court of the great temple at Gebel Barkal seems likewise to include a date:

*Inscr. 76.* Arekete : qeli : nšker : zimal : ytekes : tiske : 12

"Arekete; having finished (or dedicated) this in year 12 of *yatekeshti*(?)."

The inscriptions 82, 83 on a jamb-block from Sai show similar figures, but I do not find in them any points of coincidence with the above, such as the supposed word for "year."

It is worth noting that the three inscriptions which appear to contain dates are all written in the earlier style of Meroitic cursive.





Fig. 1. Grave of a man at Derr, Lower Nubia.



Fig. 2. Wedding Procession at Derr.

## LIBATIONS TO THE DEAD IN MODERN NUBIA AND ANCIENT EGYPT

By AYLWARD M. BLACKMAN, M.A.

IT is the custom of the women of Lower Nubia at the present day to make a periodical libation of water at the graves of their relatives (both male and female). I observed this practice first of all in the Kenfis district in the winter 1907-8 and in 1910 found that it prevailed also at Derr a hundred miles or more further south. At Derr I was told, as was Mr GRIFFITH at Serra and Faras (GRIFFITH, *Karunog*, p. 83), that the women visit the graves every Friday morning to perform the ceremony. Pls. VII, 1 and VIII, 1, 2 are photographs of graves at Derr. Pl. VII, 1 shows a new grave covered with pebbles which have been "used to count the prayers, professions of faith and names of God repeated for the benefit of the dead man by his friends" (REISNER, *Archaeological Survey of Nubia*, i, p. 314; cf. LANE, *Modern Egyptians*, pp. 520-532 [Ed. 1895]). At either end of the grave, on the outer side of the head-stone and foot-stone, a palm rib, stripped of its leaves, is stuck into the ground, a similar rib<sup>1</sup> being laid upon the grave itself. Palm ribs stripped of their foliage are also regularly carried by the women in the wedding processions at Derr (Pl. VII, 2). At the head of the grave is a bowl of red polished ware (hand-made) for the reception of the weekly libation<sup>2</sup>. At Derr, where I several times saw the rite being performed, the woman not only filled the bowl with water but sprinkled the grave itself, uttering the while, in Nubian, prayers or perhaps merely pious ejaculations. Pl. VIII, 2 depicts a woman crouching beside a grave on the occasion of her Friday morning's visit. I did not ascertain for how long after the date of the funeral this weekly libation is maintained. Possibly, in the case anyhow of a married man, it is continued as long as his widow remains alive, or until she marries again<sup>3</sup>! The practice is certainly non-Islamic in

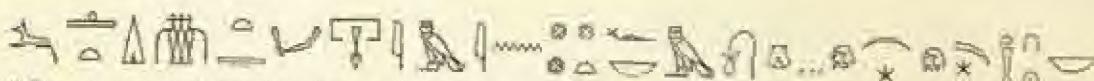
<sup>1</sup> LANE, *Modern Egyptians*, p. 496 (Ed. 1895), describing a somewhat similar practice observed in Cairo and its neighbourhood on the "Great" and "Little Festival," states that the palm-branches are "broken into several small pieces, and these, or the leaves only, are placed on the tomb."

<sup>2</sup> See also WEIGALL, *Antiquities of Lower Nubia*, Pl. IV, 2, 3.

<sup>3</sup> I do not know if the practice of offering a weekly libation of water is observed by the women of Upper or Middle Egypt, but Muhammad Ramadlan, a peasant of Illahún, Fayum, gives a *fitri* so much grain a year to recite parts of the Koran every Friday at his father's grave. Muhammad's father, I know, has been dead for some years. Such agreements with a *fitri* are commonly made by peasants in the Fayum (cf. GRIFFITH, *Sis*, Pl. VI, 1, 278/9-BREASTED, *Records*, i, §§ 545b, 546, from which we learn that the citizens of Asyut paid the priests of Upwawet's temple in grain to "spiritualize (it) their own dead on the day of kindling the light").

origin and must be a survival from paganism; as we shall see it is probably derived from the mortuary rites of Ancient Egypt.

In the tomb-chapel of Methen, who lived at the end of the IIIrd Dynasty, we find the following prayer:—



"Grace granted by Anubis who presides in the necropolis (*t: dšr*), a 'coming forth unto the voice' there by all his villages on the *w/g*-festival...the first day of the month, the first day of the half-month, the first day of every week<sup>1</sup>" (L. D., II, Pl. 5). A similar text<sup>2</sup>, dating from the VIth (?) Dynasty, occurs in Dr ROUGE, *Inscriptions Hiéroglyphiques*, Pl. XXXVIII:—



"A 'coming forth unto the voice' for him in his tomb-chapel at the monthly and half-monthly festival, on the firsts of the seasons, the firsts of the months, the firsts of the weeks."

As Dr JUNKER has shown in that admirable work of his *Das Götterdekret über das Abaton*, an outstanding feature of the Osiris cult at the First Cataract in Graeco-Roman times was the weekly libation made by Isis at the burial place of her husband Osiris. On the first day of the week ( ) Isis crossed over in a boat from Philae to Bigeh and poured out her drink-offerings in the *t: w/b-t* "Holy Place" (the "Abaton" of the Greek writers), in which were the tomb of Osiris, overshadowed by the *ley*-tree (JUNKER, *op. cit.*, pp. 51—54), and the *mnt*-grove with its 365 offering-tables (*id.* pp. 18, 51). At Philae, as in the Old Kingdom inscriptions quoted above, this weekly offering can be termed a *pri-r-hrw*. But the solid food of which a should in part consist was either not presented or else played quite a secondary role (*id.* pp. 10—17 and p. 30), indeed the is specifically stated to have consisted of milk (*id.* pp. 56, 57), milk generally taking the place of water in the libations offered to Osiris at Philae (*id.* pp. 9 ff. and 55—57). That the libation was the all-important element at this ceremony is further illustrated by the fact that a regular attribute of Isis as the chief officiant thereto is *kbh-t* "the (female) libationer" (*id.* pp. 13, 55, 56).

But the weekly libation was not confined in the Graeco-Roman period to the worship of Osiris at Philae, on the contrary it seems to have figured conspicuously in the cult of ordinary dead mortals<sup>3</sup>, as is shown by the following quotations (the first

<sup>1</sup> See EMRE, *A.Z.*, 51, p. 120.

<sup>2</sup> For the Egyptian week or dekad which consisted of 10 days, one-third of the Egyptian month of 30 days, see BRUGSCH, *Thesaurus*, II, p. 488 ff. Brugsch points out that the Demotic equivalent of + is + .

<sup>3</sup> See also MARIETTE, *Mastabas*, p. 433; cf. perhaps *Pyr.*, § 1067 c.

<sup>4</sup> It was doubtless in her capacity of a wife visiting her dead husband that Isis crossed over to Bigeh once a week.



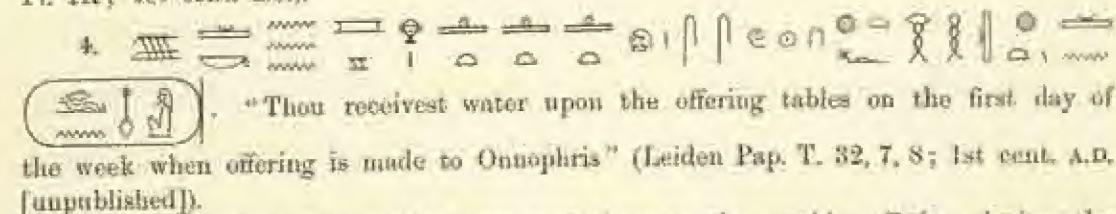
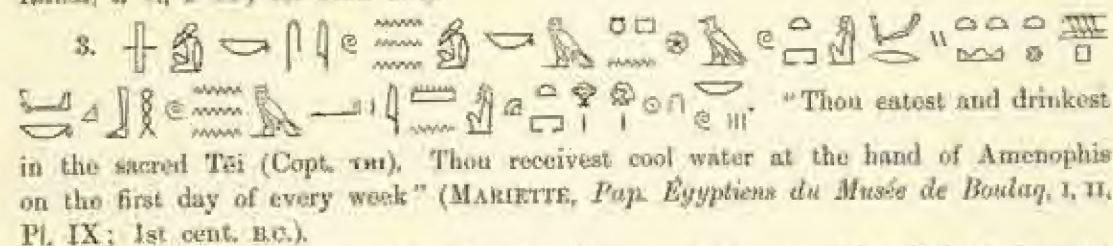
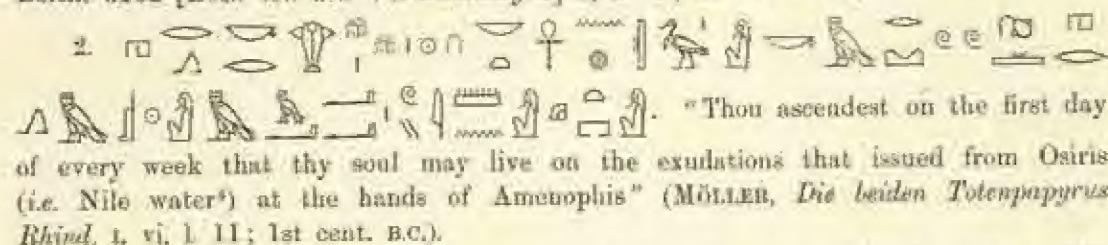
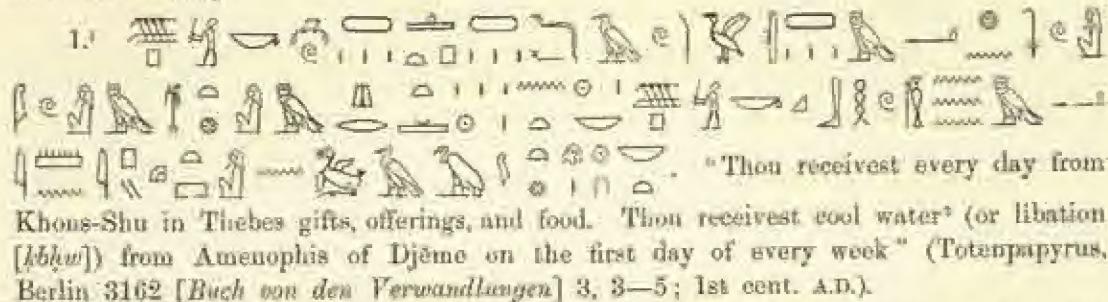


Fig. 1. Grave of a woman at Derr, Lower Nubia.



Fig. 2. Woman attending to a Grave at Derr.

three of Theban origin) from contemporary mortuary texts, which speak of a presentation of water to the dead on the first day of every week. [N.B.—The departed are frequently said to receive this offering by the grace of Amenophis (*Ima-m-ip-t*), who, being called the god of Djēme (*χνωε*), Western Thebes, was therefore associated with the necropolis and its inmates.]



It is clear from these four passages<sup>3</sup> that at the weekly offering during the Graeco-Roman period the *libation* is the important element; by this time, in fact, the ceremony seems to have consisted in the pouring out of water only as in modern Nubia,—for no mention is made of anything but water<sup>4</sup>.

<sup>1</sup> These four passages are quoted or referred to by MÖLLER, *Die beiden Totenpapyrus Rhind*, p. 85.

<sup>2</sup> The belief of the ancient Egyptians that the obtaining of water by the dead was an urgent necessity is illustrated by the curses occurring in the inscriptions on the statue of Weru and his wife (*Journal of Egyptian Archaeology*, II, pp. 5, 6, Pls. II and III c).

<sup>3</sup> See J.Z., 56, p. 69 ff.

<sup>4</sup> See also JUNKER, *op. cit.*, p. 57, for a similar passage on a Ptolemaic stele found by REISNER on the island of El-Hesch.

<sup>5</sup> It would appear that the levelling formula of the texts on the Merotic tables of offerings is concerned with the supply of water (GRIFFITH, *Karamag*, pp. 42–48, Pl. 83).

The idea that the weekly libation of Graeco-Roman times is the direct descendant of the weekly  (*pr-t-r-hw*) of the Old Kingdom can scarcely be gainsaid, especially in view of the use at Philae of the expression  to denote the weekly libation of Isis in the "Holy Place" on the island of Bigeh<sup>1</sup>.

It can hardly be doubted, too, that the modern Nubian custom, described at the beginning of this article, is connected with the weekly offering of water to the dead in the Graeco-Roman age. That the libation is now offered on Friday is no impediment to this view, for Friday is the Islamic Sabbath and therefore the proper day on which to perform such weekly religious ceremonies. Similarly the visits paid in ancient times to the cemeteries on the occasion of festivals, such as those mentioned in the contracts of Zefaihap (see BREASTED, *Development of Religion and Thought in Ancient Egypt*, p. 259 ff.), are still paid, but on purely Islamic festivals such as the "Little" and "Great Id."

When Isis went on her weekly visit to the "Holy Place" on Bigeh, she poured out libations both to the *awy-tree* (JUNKER, *op. cit.*, pp. 13, 14, 51—54)—which overshadowed the burial place of Osiris and which, being sprung from the *r̥w* of the dead god<sup>2</sup>, was a manifestation of his continued life and his perpetual rejuvenation (JUNKER, *ibid.*)—and also to the *mnt*-grove on the branches of which rested the god's *b*, (*id.*, pp. 50—51). It is perhaps worth pointing out in this connection that in the Philae district (i.e. the cemetery on the island of El-Heseh<sup>3</sup>) I noticed, in the year 1907, that at the head of many of the graves there grew in a miniature stone enclosure one or more plants, generally, I think, aloes<sup>4</sup>. These little gardens are referred to by REISNER, *Archaeological Survey of Nubia*, I, p. 314. There was sometimes a tiny doorway in one of the walls. Perhaps there is some connection between these "gardens" and the *awy-tree* or *mnt*-grove of Osiris? There were no such "gardens" in the cemeteries at Derr nor did I ever see any elsewhere than in the immediate neighbourhood of Philae. It is surely somewhat significant that apparently they should only occur near what was once a centre of Osiris worship.

The photograph, Pl. VIII, 1, which I thought worth publishing along with Pl. VII, 1, shows a woman's grave in the foreground. Like the grave described above it consists of a low mound covered with the pebbles used to count the prayers of relatives and friends; there are the usual stones at either end, and at the head the bowl for the reception of the weekly supply of water. Beside the bowl is a pottery censer (*mabkhareh*) decorated with painted stripes. A censer, I was informed, is frequently placed at the head of a woman's grave, the explanation being that it is a woman's, not a man's, duty to fumigate the house.

It will be noticed that most of the graves in the background are furnished with the bowls for water.

<sup>1</sup> See JUNKER, *op. cit.*, pp. 56, 57. When solid food was offered it appears regularly to have been soaked with the out-poured milk (*id.*, pp. 11—12, 29, 30); but the mention of solid food in the texts at Philae may be due to religious conservatism, i.e. the phrases are stereotyped and such food may not actually have been offered at the weekly libation (see JUNKER's remarks, *op. cit.*, p. 16).

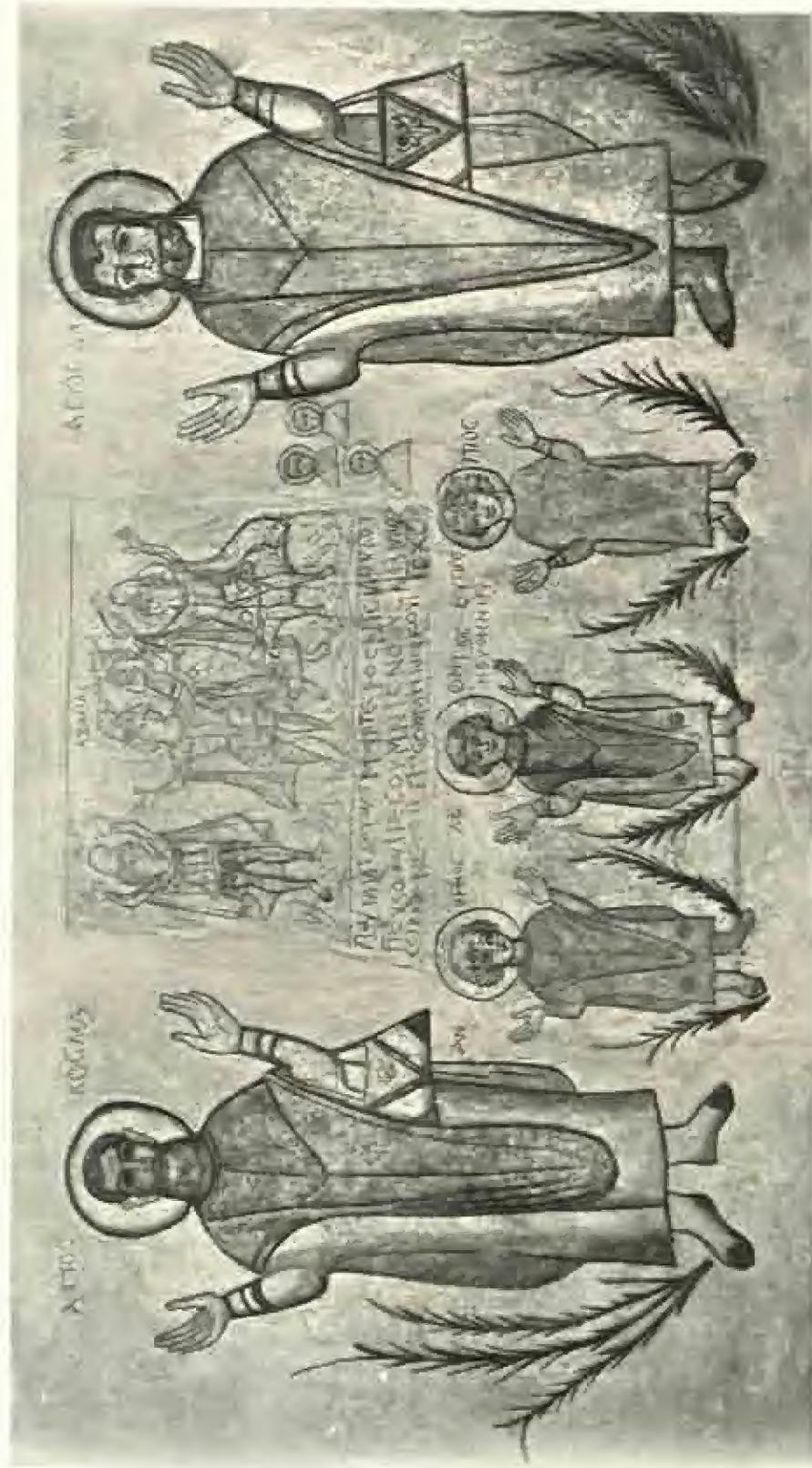
<sup>2</sup> See LANE, *op. cit.*, pp. 480, 494.

<sup>3</sup> Cf. the two *perma* trees that sprung from the two drops of blood of the slaughtered bull (the incarnation of Bata, i.e. Osiris) (*Pap. D'Orbigny*, XVI, 9/10).

<sup>4</sup> On El-Heseh was the ancient cemetery of the priests of Philae (JUNKER, *op. cit.*, pp. 48, 49).

<sup>5</sup> Cf. perhaps LANE, *op. cit.*, p. 266.]





Coptic Wall-Painting from Wadi Sarga.

## A COPTIC WALL-PAINTING FROM WADI SARGA

By O. M. DALTON, M.A., F.S.A.

ALLUSION has already been made in this Journal to the excavations carried out by Mr R. Campbell Thompson in the winter of 1913–1914 on behalf of the Byzantine Research and Publication Fund at the Coptic site of Wadi Sarga, about fifteen miles south of Asyūt (Siūt). In a note published in Volume I, Part III, Mr Thompson alluded to a fresco of the Three Children in the fiery furnace, with figures of SS. Cosmas and Damian and their three brothers, discovered in a villa about two miles north of Wadi Sarga. As the publication of the various finds made at or near Wadi Sarga has been postponed owing to the absence of the excavator on military service, it may be of interest to reproduce the fresco in question, which was detached from the wall and brought to the British Museum<sup>1</sup>.

The design as a whole commemorates the two ἀράπυνοι SS. Cosmas and Damian, and their brothers Leontios, Euprepios and Anthimos. The two former are represented by the large figures on the right and left, the latter by the three smaller figures with their arms raised in the attitude of *orantes* in the lower part of the composition. Above the three brothers and corresponding with them as type to antitype, are the Three Children in the fiery furnace, with the form of the angel which stood by their side in the flames<sup>2</sup>. Cosmas, Damian and their brothers suffered martyrdom at Aegae

<sup>1</sup> Unfortunately the wall-painting, which is 4 ft. 9 in. by 2 ft. 10 in., suffered considerably during the processes of removal and transference to a new base of plaster. In the accompanying illustration (Plate IX), it is seen as finally restored from Mr Thompson's photographs and from the careful coloured tracings which he took on the spot before the removal. The *orans* of the Three Children with the Coptic inscription beneath it was hardly damaged at all, the principal losses occurring in the case of the large figures of the two principal saints. Thus, in the case of S. Damian, the top of the head and upper left half of the face including the left eye, most of the right arm, and the left foot were destroyed, while only parts of the hands and the right foot were preserved; the garments and bag of instruments remained intact. Of the three brothers, Euprepios was almost perfect, as were the head and upper part of the body of Anthimos. The head of Leontios had suffered at the top, but the arms and hands and the left foot were almost perfect. The palm branches rising near the feet of the Saints were in general well preserved. The small busts under the right arm of S. Damian were entirely lost: they have been reproduced from a photograph.

<sup>2</sup> The introduction of the fourth person in this subject (cf. Daniel iii. 25) dates from Early Christian times. An example occurs on a gilded glass from the Catacombs (GARIBOLDI, *Vetri ornati di figure in rivo, etc.*, Pl. I, fig. 1), where the fourth figure carries the rod or wand of power, and is identical in type with Our Lord as represented when performing miracles. At an early date, the fourth person assumed the attributes of an angel, and was represented with wings, as on a terra-cotta

in Cilicia during the persecution of Diocletian, together with their mother Theodote. They were first tortured in various ways, and then placed upon a burning pyre; the different versions of their passion agree that, like the Three Children, they remained unscathed in the fire, for though not a hair of their own heads was harmed, many of the heathen who stood round them were consumed. It is evident that this part of their martyrdom presents a parallel sufficiently close to justify the introduction into the picture of Ananias, Azarias and Misael, whose miraculous preservation was from the first employed in Christian art to illustrate the triumph of mankind over death. The three small busts, occupying the space beneath St Damian's right arm, may perhaps represent the dedicators of the painting, but it is not very clear whether they have hoods or haloes. In the latter case they must be regarded as additional saints<sup>1</sup>. The inscriptions upon the fresco are in Greek and Coptic; the former merely giving the names of the several figures<sup>2</sup>, the latter offering a more extended interest. The three-lined inscription under the Three Children runs:

πατριτάστοιστηρεοτάστοισιν (sic)  
πετρούπεσονταστούτημι  
ουγκρενεκοτιασομηπανοι. IC XC

and is interpreted: *The threescore martyrs of Siút; their day the twelfth of Mekheir; Hourkene the little, my brother Mena the little—Jesus Christ.* Between the figures of SS. Leontios and Euprepios is seen the word *μετανάσται: their brethren.*

The immediate connection of the longer inscription with SS. Cosmas, Damian and their brothers, or indeed with the Three Children, is not at first sight obvious. The monks Hourkene (Origen)<sup>3</sup> and Mena are perhaps dedicators of the work, or else commemorated by it. Nothing seems to be known of the sixty martyrs of Siút.

There is a marked difference between the style of the group representing the Three Children, and that of the remaining figures. This group is in red monochrome, while the other parts have greater variety of colour<sup>4</sup>; moreover it is distinguished by a freedom and vigour of drawing which suggest the work of a more capable artist.

lamp in the Museum at Constantinople (KRAUS, *Geschichte der Christlichen Kunst* 1, p. 81). The rod was now converted into a long cross, as here, and in the fresco at Sappara (QUIBELL, *Excavations at Sappara in 1905 and 1906*, Pl. LVIII); in both cases it is extended before one or more of the Children as a sign of divine protection.

<sup>1</sup> *Acta Sanctorum*, Sept. 27. Sir Herbert Thompson notes that the Greek martyrologies say that Leontios, Euprepios, and Anthimos were physicians and brothers, but not related to Cosmas and Damian (*Dict. Christ. Biogr.* s.v. Euprepios). The Coptic authorities maintain the relationship, but do not give the place of martyrdom. Cosmas and Damian were increasingly popular in East-Christian art from the sixth century onwards. They were early represented in Egypt, as at Dér Abu Hennia.

<sup>2</sup> There were other figures in the same chamber of the villa. A copy of an *orans* is among Mr Thompson's tracings, with a note to the effect that it resembles another figure from the same place, removed by him, but retained by the Cairo Museum. A conventional but effective peacock also formed part of the decoration of this chamber.

<sup>3</sup> αἵρεις κόσμα(ε), αἵρεις δαμαν(ος), αἱροῦμες, λεοντίος, εὐπρεπιος. Above the central figure in the scene of the Three Children, αἱρεῖσθαι; above the angel, αἱρεῖσθαι.

<sup>4</sup> Ημέρα: is the name of the month Mekheir, pronounced and written as in Arabic, *Imāh*(r).

<sup>5</sup> As Mr Crum suggests, this name is no doubt the pseudo-Greek Origenes (Origen), which is really Egyptian. It often occurs, in the form *gopine*, on ostraka.

<sup>6</sup> Even here, there is no attempt at brilliancy or contrast. The prevailing shade is brown relieved by a purple tone for the dark, and a yellowish tone for the light effects.

That this is actually the case, is indicated by the fact that even upon the wall of the villa it formed an inserted panel, of which the edges were hardly less plainly discernible than they are in Plate IX. It would thus seem that the artist who painted the five saints composed his work, as it were, around a group of the Three Children executed by another hand, and recognized as possessing superior quality. Whatever faults of proportion may detract from the merit of the group, the bold and sure touch of the artist has endowed it with undeniably charm.

It is generally venturesome to attempt precise dating in the case of Coptic art. But it appears to be established that after the Arab invasion there was decadence in all that concerned the representation of the human figure; most of the best mural painting which has survived, such as that at Elwrit and Saqqara, is ascribed with probability to the sixth century or the beginning of the seventh. To this period our subject may be conjecturally assigned, the group of the Three Children perhaps belonging to a rather earlier part of it than the rest<sup>1</sup>.

I am indebted to Mr W. E. Crum and Mr H. R. Hall for the translation of the Coptic inscription.

<sup>1</sup> Mr Thompson discovered other wall-paintings in a cave-church at Wadi Sarga itself. The principal subject was in the apsidal recess, and consisted of the Communion of the Apostles. The work here was much spoiled by pitting of the surface, but at its best was ruder and in a less finished style than that which has been described above. The paintings in the church were not removed.

## A COMPARISON OF CHINESE AND EGYPTIAN TOMB-SCULPTURES

By H. R. HALL, M.A., F.S.A.

IN the *Bulletin* of the Boston Museum of Fine Arts for August was published a very interesting article, illustrated by photographs, on some specimens of ancient Chinese tomb-sculptures recently acquired by the Museum. Sculptures of this kind have lately excited much attention, and there are now many forgeries of them about. So collectors have to be careful. Their style is characteristic of a certain period of Chinese art, and they are worth comparison with Egyptian tomb-reliefs as showing how two arts, apparently unconnected with one another, had arrived at something of the same sort of ideas. The Chinese sculptures are "lightly carved or engraved on stone, and used to decorate either the small ante-vaults which were built before the graves of rich and important people, or the more monumental pillars which sometimes marked the approach to a group of such graves. In all probability the custom of erecting these funerary chambers originated about the beginning of the later, or Eastern, Han Dynasty (A.D. 25-221)."

Many of the scenes of the Chinese tomb-pictures relate to traditional Confucian anecdotes of filial or feudal piety: the virtuous boy Po Yit, who wept with poignant grief when he observed, from the growing weakness of his mother's arm when she was thrashing him, how terribly old-age and decrepitude were growing upon her; the Duke Chou protecting King Chi'eng-Wang; and so on. These, with such a representation as that of the Emperor Mu Wang driving in his chariot to visit the fairy Hsi Wang Mu, the Royal Lady of the West, in her enchanted abode among the human-headed clowns of the Kuen Lun Mountains, are, I suppose, the nearest that non-Buddhist or pre-Buddhist China could get to religious representations. The writer of the article in the *Bulletin*, J. E. L., apparently thinks that all the sculptures are of this anecdotal "religious" character, but there are many which he cannot identify with any known "goody-goody" story of the kind the Chinese love, and it seems worth considering whether these are not simply scenes of the daily life of the deceased. In one we see a feast in progress. "At the right an acrobat and a dancer are performing,—the acrobat apparently juggling a little girl on his upturned feet,—while further to the left the host of the occasion and his servant are setting forth a variety of refreshments before several guests, of whom three are already seated and three more in process of being welcomed to the board by another servant. Below we are shown some of the work necessitated by the banquet going on above. Water is being drawn from a well; a food animal, strung up against

the fulcrum of the well-sweep, is being butchered, to the evident interest of a bird perched on the overhanging counterbalance; birds are being taken from one receptacle, a pig is being laid out in another, and at the extreme left a man is seen sharpening a knife." "Judging by analogy," the writer says, "this design must have been intended to illustrate the happenings of a particular occasion which we cannot now identify, but in any case we can hardly fail to be charmed by this sharply focussed glimpse of pleasure and labour in ancient China."

This may be so: such a representation of some famous banquet, given by a prehistoric Shantung millionaire in the days of the Chou Dynasty, at which something happened calculated to point a moral, would be typically Chinese. But on the other hand the analogy may not hold good: these may be mere representations of the ordinary life of the household of the deceased chieftain. And the unexplained representation of "the chariot of the Master of Writings" and "the chariot of the Magistrate" may be of similar character, and set forth his daily state and cavalcade. Whether there was any belief behind such representations, like the magical idea at the back of the analogous Egyptian tomb-paintings and reliefs, creating for the deceased a world in the abode of the dead like that which he had enjoyed on earth, I leave to students of Chinese religion to determine. Probably not; the Chinese are very matter-of-fact.

But now the question arises whether the "apparent" absence of connexion between Chinese and Egyptian artistic ideas is really a fact, and whether, seeing the date of the Chinese tomb-pictures, there may not have been some remote connexion between them. We must remember that at this very time China was in commercial connexion with Rome. The *bryssus* of the Seres was exchanged on the frontier of Persia with the Syrian merchants, and so came to the West. Chinese power first actually touched the West in the time of the great Han Emperor Wu-ti, about 100 B.C., and relations between Persia and China became constant thereafterward. Exiled Persian princes habitually found refuge in China. About 100 A.D. a Chinese army under the great general Pan-ch'ao reached the Caspian. It was only by a chance, then, that Trajan did not come into actual contact with the imperial troops of the Han. Pan-ch'ao is said to have tried to open negotiations with Rome. In 284 A.D. an embassy from Diocletian came to the court of the Emperor Tsui Wu-ti. Now, going back in time, we have traces of connexion between Buddhist India and Egypt as early as the time of the Ptolemies. Egyptian ideas might by the second century A.D. have reached China.

The old way of decorating tombs with relief scenes of daily life had been revived under the Saïtes. It is true that such tomb-decoration was no longer practised in Roman times. But the Saïte tombs and those of the Old Kingdom at Sakkarah and Gizah were, like the *oropystes* at Thebes, doubtless many of them open and visited by tourists in Halirius's day as they are now, so that a notion of their decoration would be general in the intelligent world. And the Chinese of the Han were highly intelligent, civilized, and powerful, and probably by no means averse from adding to their stock of ideas by borrowings from the West. The epoch-making results of the excavations of Sir Aurel Stein in Chinese Turkestan have shown us how considerable the relations between the classical world and China as a matter of fact were. After his revelations none can say that an ultimate Egyptian origin for the *idea* of the Shantung tomb-sculptures is impossible, even if their contents are only pure Confucian anecdote, and bear no real analogy to those of the Egyptian

## 40 COMPARISON OF CHINESE AND EGYPTIAN TOMB-SCULPTURES

tomb-reliefs. The Chinese sculptures are far more like the Egyptian in idea and intention than they are like such Indian decoration as the wall-paintings of the Ajanta caves. Indo-Hellenic artistic ideas were of course affecting Chinese art at this period. The exotic Indian Kharoshthi-speaking kingdom, the remains of whose culture were discovered by Sir Aurel Stein at Niya in Chinese Turkestan, was flourishing in the time of the Emperor Tsin Wu-ti, who received the embassy from Diocletian. But these sculptures have nothing Indian about them and nothing classical. Nor in the actual style of the art itself is there anything Egyptian beyond a vague occasional resemblance which may or *may not* be due to chance. It is the *idea* of decorating a tomb in this particular way that is Egyptian, and it is the *way in which the pictures are put upon the walls* in these Chinese tombs that reminds us so strongly of Egyptian practice and convention, that we are bound to reflect that in the time of the later Han it was by no means impossible for an idea to pass from India to China. In fact it is not impossible that actual Chinamen from Serica may in the second and third centuries A.D. have seen old Egyptian tombs with their own eyes. If Roman ambassadors could go to China, Chinese merchants could come to Egypt.

In any case the Chinese tomb-sculptures are worthy of comparison with those of Egypt, and the photographs published in the *Bulletin* will repay inspection.

## EGYPT AT THE BRITISH ASSOCIATION, 1915

AT the meeting of the British Association held at Manchester in September a considerable number of the papers read in the Anthropological Section were of interest to Egyptologists.

The address of the President, Prof. C. G. SELIGMAN, although dealing mainly with the Anglo-Egyptian Sudan, contained a good deal of matter referring to Egypt and its influence on Negro Africa. The extension of Egyptian rule up the Nile Valley can be traced from the earliest times to the XVIII Dynasty, by which time Egyptian influence had become so firmly established, that the culture of the states that subsequently arose in the Nile Valley had a predominantly Egyptian tinge. The western extension of Egyptian influence was later, but there is no doubt that during the last few centuries B.C. North Africa was thoroughly permeated. This influence probably travelled by two distinct routes, one along the shores of the Mediterranean, the other south-west through the cases to Darfur and the Chad basin. The fact that certain customs common among the Negroes of Africa to-day existed among the Ancient Egyptians need not be taken as proof of Egyptian influence, but may merely indicate the wide diffusion of old Hamitic blood and ideas; yet a mass of evidence is forthcoming decisively indicative of such influence, which is especially obvious in regard to beliefs connected with the soul and death customs.

Of the papers, perhaps the most important was that read by Dr Alan GARDINER upon the "Egyptian Origin of the Semitic Alphabet," but as his communication is published in full in the present number of this Journal it is unnecessary to make any further reference to it. He was followed by Sir Arthur EVANS, who laid stress on the value for comparative purposes of certain Cretan analogies. These indicate the fallacy of De Rouge's view that the Semitic alphabet was derived from *hieratic* Egyptian, the signs having lost their meaning but retaining much of their old phonetic value.

Miss M. A. MURRAY's paper on "Royal Marriages and Matrilineal Descent" gave the most complete account yet recorded of the consanguineous royal marriages of the XVIII Dynasty. New facts were brought to light, and new ideas offered upon already admitted facts. Miss Murray pointed out that at certain periods in the history of every nation inheritance was in the female line, which custom continued to a later date in royal families than among the mass of the people. Under this system the man who married the queen became king, and many instances were quoted from Roman, Jewish and Egyptian history of marriages within the modern degree of affinity. Miss Murray argued that these marriages were not prompted by any vicious propensities,

such as later historians are wont to ascribe to those practising them, but to stern political necessity; to the desire to retain the crown in the ruling family and not allow it to pass into the hands of strangers, which would have happened had the queen been allowed to marry some man outside her own immediate family. This explains the frequent occurrence of brother-sister, uncle-niece, and even son-mother marriages which took place in Egypt, especially during the XVIII Dynasty.

Mr Robert MOND exhibited a cardboard folding model of the elaborately painted tomb of Menna at Kurnah. The interior of the model is covered with photographs of the wall-paintings, on a greatly reduced scale, yet though the reduction is considerable every detail is reproduced in its correct position and proportion. The ingenuity of the model and its value for teaching purposes was keenly appreciated by the audience.

Professor V. GIFFFRIDA-RUGGERI contributed a paper upon "Neolithic Egyptians and the Ethiopians," his main theme being the identification of the Egyptian users of copper tools of the I., II. and III. Dynasties with the Ethiopians who had obtained copper from Sinai. New characters appearing in the IV., V. and VI. Dynasties point to the conclusion that while the prehistoric people were largely made up of Ethiopians, in the later period a great infiltration set in, proceeding in an opposite direction, from Syria, Sinai, and the North Arabian coast, territory already occupied by the Mediterranean race. A cross seems to have taken place between the Ethiopians, "belonging to an elementary species of equatorial origin, and the Egyptians, belonging to an elementary species of Nordic origin." Owing to lack of time this paper was taken as read.

A discussion upon "The Influence of Egyptian Civilisation upon the World's culture," was opened by Professor ELLIOT SMITH and Mr W. J. PERRY. Their papers gave rise to a good deal of argument, at times somewhat heated. Professor Elliot Smith introduced his remarks by explaining that his presentation of the subject was to be regarded as the logical extension of his views concerning the megalithic culture which he had laid before the Association at the last three meetings. He, however, confined his arguments to the spread of Egyptian culture in an easterly direction, where it has suffered less disturbance from subsequent developments than in the west. Mr Perry, who followed him, pointed out that when once the eastern cultural spread had been carefully studied, the more complicated course of events in the west became decipherable also. The first speaker stated that towards the close of the New Empire period, or perhaps a little later, a great many of the most distinctive practices of Egyptian civilisation suddenly appeared in more distant parts of the coastlines of Africa, Europe and Asia, and also in course of time in Oceania and America; and suggested that the Phoenicians must have been the chief agents in the distribution abroad of this culture.

The theses submitted for consideration were (*a*) that the essential elements of the ancient civilisations of India, Further Asia, the Malay Archipelago, Oceania, and America were brought in succession to each of these places by mariners, whose oriental migrations (on an extensive scale) began as trading intercourse between the Eastern Mediterranean and India some time about 800 B.C., and continued for several centuries; (*b*) that the highly complex and artificial culture which they spread abroad was derived mainly from Egypt (not earlier than the XXI. Dynasty), but also included many important accretions and modifications from the Phoenician world around the Eastern

Mediterranean, from East Africa (and the Sudan), Arabia and Babylonia; (c) that, in addition to providing the leaven which stimulated the development of the pre-Aryan civilisation of India, the cultural stream to Burma, Indonesia, the eastern littoral of Asia and Oceania was in turn modified by Indian influence; and, (d) that finally the stream, with many additions from Indonesia, Melanesia, and Polynesia, as well as from China and Japan, continued for many centuries to play upon the Pacific littoral of America, where it was responsible for planting the germs of the remarkable Pre-Columbian civilisation.

The fact that some of the practices which were thus spread abroad were not invented in Egypt and Phoenicia until the eighth century B.C. makes this the earliest possible date for the commencement of the great wandering which distributed the whole culture-complex, though certain of its constituent elements were diffused abroad to neighbouring lands long before then.

Mr Perry's contribution, dealing with the western culture zones, was even bolder than that of his forerunner. He argued that there is a general agreement between the distribution of megalithic influence and ancient mine workings, and that the technique of mining, smelting and refining operations is identical in all places where traces of ancient smelting operations have been discovered. He stated that Professor Gowland had shown that Britain, Spain, Switzerland, Egypt and Japan, as well as other places, were once the seats of metal industries. In all these places the form of the furnaces used, and the processes of smelting and refining are the same. This serves to strengthen the conclusion derived from the consideration of distribution, and also serves to identify the cultural influence which was at work in the early neolithic settlements of Switzerland and elsewhere with the megalithic influence. The conclusion drawn from all these facts was that the search for certain forms of material wealth, especially gold and pearls, led the carriers of megalithic culture ("Egypto-Phoenicians" to wit) to those places where the things which they desired were to be found. The presence or absence of the desired form of wealth seems to have determined the presence or absence of megalithic influence.

Professor PETRIE gave a demonstration upon "Egyptian Jewellery" in which he laid stress on the fact that the jewellers' art reached its highest point during the XII Dynasty. He described and showed slides of the specially valuable collection of jewels, the property of a Princess who lived during the reign of Amenemhat III, which he and his colleagues discovered at Labun a couple of years ago. The jewellery belonged to two reigns, those of Senusert III and Amenemhat III, and the most important pieces were a pectoral belonging to each reign, with hawks as supporters of the cartouche, and a golden crown with plumes and streamers of the same metal. Besides these there were bracelets, necklets, and vases, and a silver mirror with hawk of gold and obsidian. All the framing is of gold, and the inlays are of turquoise, lapis-lazuli, carnelian and amazonite.

Time did not permit the reading of the Report drawn up by Professor ELLIOT SMITH, the Chairman of the Committee, on "the Physical Characters of the Ancient Egyptians." The extremely valuable collection of human remains, dating from about 1700 B.C., collected by Dr Reisner at Kerna, near the Third Cataract, have now been photographed and measured, but the investigation is not yet complete, and the report must therefore only be considered as an Interim Report until such time as the Final

Report can be produced. Among these human remains those of a considerable number conform in every respect to the proto-Egyptian type, such as is found in pre- and proto-Dynastic cemeteries in Upper Egypt. These might well represent the descendants of an Egyptian colony planted in Kerma during the Old Empire. There are also many representatives of that modification of the proto-Egyptian racial type which has been designated "Middle Nubian," or "C-group." These people constituted the normal population of Lower Nubia during the period between the Middle Empire and the time when the country was overrun by Egypt during the New Empire, i.e. the time of the Kerma burials. Even in Lower Nubia they exhibit definite traces of some negro admixture; and in this respect the Kerma material agrees with the more northern remains of the same age. But at Kerma there is perhaps a greater variety of slightly negroid types than in Lower Nubia—a state of affairs that is not surprising considering that it is nearer the negro domain. The most interesting remains that this cemetery has yielded are a minority conforming in every essential respect to the type from Lower Egypt illustrated in last year's Report (p. 219, figs. 1, 2 and 3). They represent a type which appeared in Lower Egypt in proto-Dynastic times and spread up the river very gradually until, by the time of the Middle Empire, the aristocratic population throughout Egypt was more or less permeated by intermarriage with such people. It is in the highest degree unlikely that the effects of such admixture could have become apparent at the Third Cataract before the Middle Empire. That it did so soon afterwards suggests that the expeditions to the Sudan at that time were commanded by people of this aristocratic type. This is further confirmed by the results of the examination of the human remains, because the people who conformed to the type in question were those buried in the most sumptuous graves, and were obviously the most important people interred on this site.

## THE ECKLEY B. COXE, JR. EXPEDITION

[Note.—The following account of the work of the Eckley B. Coxe Expedition at Gizeh and Memphis is taken, by permission of Mr Eckley B. Coxe, Jr., our Hon. Secretary for America, from the *Philadelphia Museum Journal* for June, 1915 (Vol. vi, No. 2).]

"Mr CLARENCE S. FISHER, Curator of the Egyptian Section of the Museum, arrived in Egypt on December 16, 1914. On that day, as it happened, Egypt became a Protectorate of the British Empire. Mr Fisher found that the country was quiet. Most of the archaeological concessionaries had withdrawn from their excavations and in consequence laborers, many of whom had experience in excavating, were plentiful. The conditions were in all respects favorable for an expedition equipped to conduct excavations on the sites of one or more of the ancient Egyptian cities. The organization of the Eckley B. Coxe, Jr. Expedition was therefore completed under the patronage of the President of the Museum to carry on systematic excavations, subject to arrangement with the Egyptian Government.

The first step to be taken was to secure through the Department of Antiquities of the Egyptian Government a site that would yield the results which the Museum was most desirous of obtaining. Mr Fisher spent a month in preliminary examination of various sites in the Delta and in lower Egypt. For various reasons the choice of sites fell upon the following three. Tanis in the western Delta, a city dating from the sixth dynasty to the Roman Period; the pyramid fields at Gizeh, containing the great royal cemeteries of the fourth and fifth dynasties; and ancient Memphis, situated on the west bank of the Nile and dating from the earliest prehistoric times to the Arab invasion.

Tanis had, a year before Mr Fisher's arrival in Egypt, been divided between a French expedition and an Austrian expedition, but excavation on the site had not begun. Gizeh had several years previously been divided between an American expedition, a German expedition, an Italian expedition and an Austrian expedition. Professor Flinders Petrie had begun excavations at Memphis in 1906 and continued these excavations during a period of three months each year until 1914. Some of the principal portions of the great site, however, still remain untouched. The cemeteries at the Pyramids had all been parceled out, but upon the proclamation of the British Protectorate the German concession and the Austrian concession were forfeited. Likewise the Austrian concession of the half of Tanis was forfeited. An application was accordingly made for the German and Austrian concessions at Gizeh which had been partly worked and the Austrian concession at Tanis which had not been worked at all. The government, however, at that time decided to reserve these

forfeited concessions until the close of the war. By chance, one of the most important parts of the cemeteries at Gizeh had been assigned to the Boston Museum of Fine Arts which had conducted investigations there since 1903. Through the Director of these excavations an arrangement was made whereby a part of this site was transferred to Mr Fisher to excavate on behalf of the Eckley B. Coxe, Jr. Expedition. The Museum has thus enjoyed this year an opportunity of participating in the excavation of the greatest Old Empire site in Egypt.

There remained Memphis. After an examination of this site Mr Fisher applied for that untouched portion which was believed to contain at some depth the ruins of the Royal Palace of the New Empire. In due time this area was measured out and formally assigned by the Egyptian Government to the University Museum.

Mr Fisher conducted excavations at Gizeh for a period of six weeks. Among the discoveries which he made was an offering table with two rows of inscription around its edge containing the names of Khufu and Khafra, the builders of the first and second pyramids, and that of Dedefra, a mysterious king of whom little is known and whose place in the fourth dynasty has not been determined. This is the fourth example of his cartouche that has been discovered. Another discovery of special interest made during the excavation of the Gizeh cemetery was an offering chamber built of mud brick with ribbed vault constructed of specially designed brick with interlocking joints. This is the first time that this type of construction has been found in Egypt or on any ancient site. The tomb in which this vault was found is not of later date than the sixth dynasty.

On March 11 Mr Fisher moved his camp to the Memphis site and work was begun on the 13 of March with a large force of men. The surface of this area was covered with heavy mud brick walls of Roman or Ptolemaic origin. This represented the latest period of occupation. The first operation was to sink a trench down to water level where the sand and mud are saturated with water of the Nile. Below the upper level already described was found a second stratum of occupation which Mr Fisher has not yet identified. Below this stratum were found traces of a great building which is presumably a part of the royal palace. As the seepage from the Nile at this lower level interfered with the excavations, a pump was installed to keep the diggings dry. In order to facilitate the removal of the dirt without encumbering the site, a section of railroad was laid down to carry to a distance the rubbish removed. In this way the débris of the excavations will not be allowed to encumber any part of the ruins and interfere with future excavations. The digging at Memphis has now proceeded for three months. The organization embraces a force of one hundred and eighty men and work has proceeded rapidly. On such a large site where so much débris has to be removed, the developments are slow and the laying bare of ancient buildings is a tedious and protracted operation. Nevertheless, the progress that has already been made indicates that the site was well selected. The objects that have been found during the three months' digging have been numerous, although for the most part small. On April 10 Mr Fisher wrote as follows.

'All the force is now employed on the area where the two exposed tops of columns attracted me some time ago. The plan of the whole is now developing and we have a great door leading to another room to the north. I am quite sure that

we have the beginning of the palace here. The columns bear long inscriptions and the jambs of the doors have also inscriptions and reliefs of the king Merneptah making offerings to different deities. When first exposed all the inscribed parts are filled with mud and the surface of the stone itself is very wet and soft. Nothing can be done to it in the way of cleaning until this dries and then the earth peels off rather easily."

Professor Flinders Petrie began excavations at Memphis in 1908. These excavations were continued for several years, but almost the entire site still remains to be excavated. The Museum, which had already participated in Professor Petrie's excavations, has long had an interest in Memphis. The great granite sphinx which stands in the courtyard of the Museum formerly stood in the temple of Ptah at Memphis, where it was unearthed by Professor Petrie in 1912. Professor Petrie's work was brought to a close at the time of the outbreak of the European war and since that time, the University Museum, through the Eckley B. Coxe, Jr. Expedition, has taken up the arduous task of excavating in a systematic way the site of the greatest capital of ancient Egypt."

[NOTE.—For comment by Prof. Petrie on this work at Memphis see our Notes and News, p. 61, of this number of the Journal.]

## JAMES DIXON

† AUG. 10, 1915.

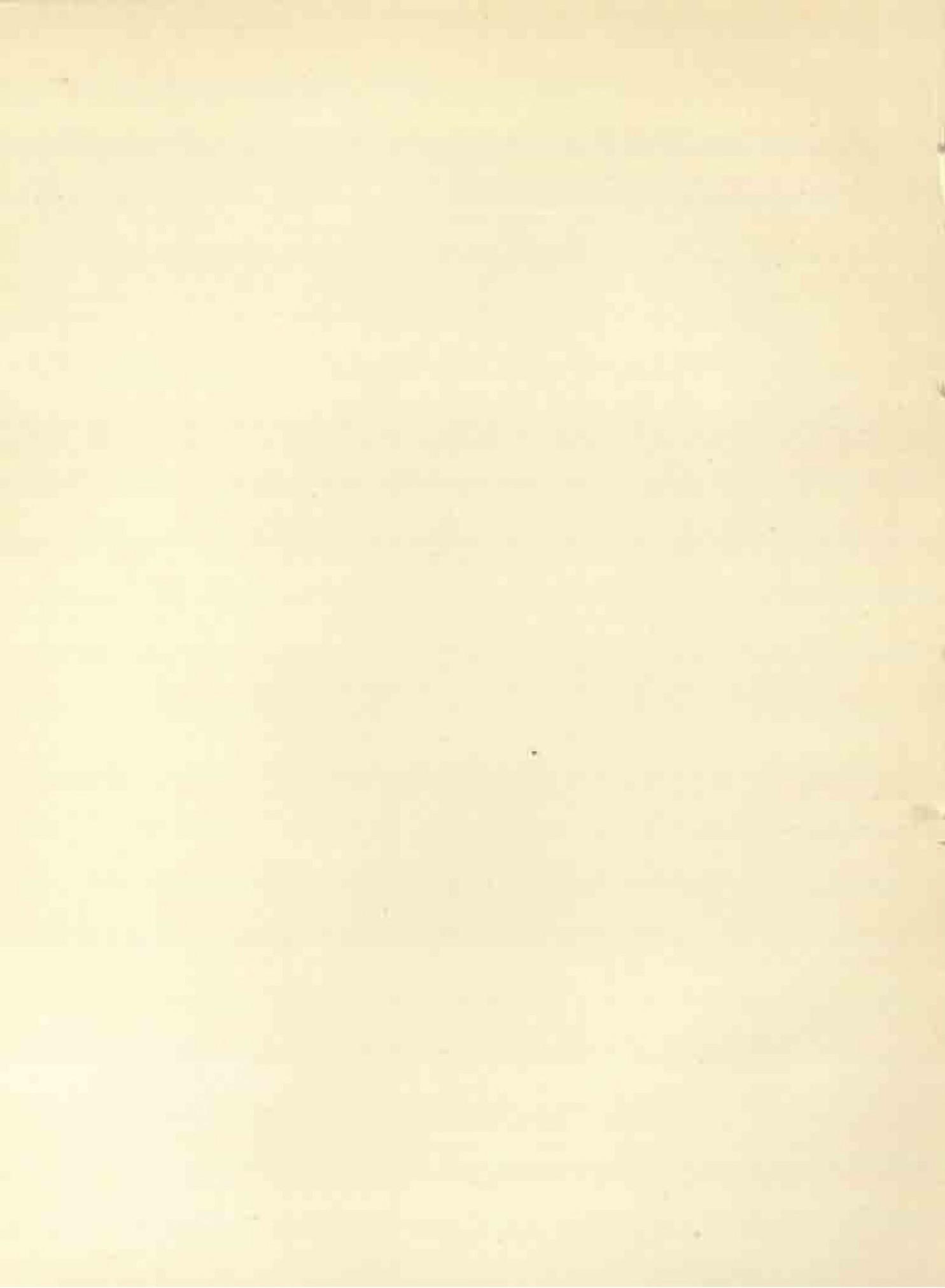
IN the long list of those who have given their lives in defence of the sanctity of solemn treaties, on which the maintenance of rational order, right and justice in the world depends, in defence of that honourable conduct of existence which is the essence of civilization, as opposed to mere material *Kultur*, the Egypt Exploration Fund has the great honour to claim as that of one of its own officers the name of the late James Dixon, Second-Lieutenant in the 8th Battalion of the Border Regiment.

Mr Dixon was 24 years of age when he died for his country in the fighting at Savla Bay, in the Gallipoli Peninsula, on August 10, 1915. He was educated at St Paul's School, where he did well, and at the same time gave early promise of his future power of draughtsmanship in the usual way, by caricaturing his masters. Leaving school, in 1908 he was enabled to put his artistic powers to good use by joining Mr Blackman in his work of copying the reliefs and inscriptions of the Temple of Dendur for the Egyptian Government. Mr Blackman writes: "He was most successful in his work with me at Dendur,...as can be seen from his admirable copy of the frieze in the pronaos (*Dendur*, Frontispiece), and the types of headdresses, etc. (*op. cit. Pl. vii—cxx*)."<sup>1</sup> In the season of 1909–10 he came to Abydos for the Fund, to work with Prof. Naville, Mr Peet, Mr Legge, Mr Trefusis, and the writer of this small tribute to him. We all who worked with him there can testify to his energy and keenness, and to the conscientiousness with which he did his work. We saw how faithful and how accurate his pencil was as draughtsman and copyist of the inscriptions and other objects that were discovered in the course of the work or, being above ground, were to be reproduced by him. He was, however, not only a draughtsman; though so young, he was a good and sensible leader, and would have become a fine excavator. His part in the war, as a subaltern of infantry, was clearly marked out for him. Here again, as in the case of Ayrton, had one had any foresight of a great British land-war, one would have said: there are the makings of a good officer.

After working at Abydos for two seasons, Dixon joined Mr Wellcome's Sudan expedition, and worked for him at Jebel Moya, near Sennar, as excavator as well as draughtsman. He also copied tomb-paintings at Thebes for a German Egyptologist whom we need not name, since he has distinguished himself even above his fellows by the foolish ignorance of his attacks upon England since the beginning of the war. However, then, Germany had not torn up a treaty to which Prussia had solemnly set her hand and seal, and German and British men of science could be friends.



Mr. James Dixon,  
6th Border Regt.,  
killed at the Dardanelles, Aug. 10, 1915.



Meanwhile, at home Dixon had turned his attention to heraldic drawing, in which he bid fair to become very expert indeed. He was always interested in mediaeval history, and was in his spare time engaged upon an elaborate investigation into the records of his own family, which is an old one.

Then came the war, and Dixon took up the sword. There was a question, after he had been gazetted, of his being appointed successor to Ayrton in the headship of the Archaeological Department in Ceylon. He felt however that it was impossible for him to leave the army in the midst of the great war in order to take up a civilian post, however important and responsible it might be. He was full young for it, too. He would wait till the war was over. Then, if he were spared, he could honourably take it up. That he would have been appointed eventually there is little doubt. But fate willed that he should not. We can only mourn his loss.

He had, as Mr Blackman writes, "a very attractive exterior and also a charming manner. His personality was no less attractive. He was very quick and active both in mind and body; had a remarkable way of getting on with and managing the *fellahs* workmen, and was immensely popular with them."

We have to thank his mother for the photograph of him here published, and for several notes on his short life.

## BIBLIOGRAPHY: CHRISTIAN EGYPT 1914-1915<sup>1</sup>

BY S. GASELEE, M.A.

1. *Biblical*.—A very full review of Budge's Biblical texts (v. *Report* 1911-12, 56) is written<sup>2</sup> by SCHLEIFER with many suggestions for filling up gaps and otherwise improving the text.

The Behairic *Wisdom* (so far as we possess it) is by no means without interest for the criticism of the Greek text. We have four lections from it which were in liturgical use, and these were printed by Bouriant (*Rec. de Trav.* vii, 86). Now D. P. BUCKLE, continuing previous work on the subject (v. last *Report*, 24), edits<sup>3</sup> them from a different MS (in the Rylands Library) with a differing text, and discusses their critical value in a series of useful notes; and makes an estimate of the Coptic versions more readily reached by printing opposite them Sir Herbert Thompson's Sa'idi text (v. *Report* 1908-09, 54).

WINSTEDT kindly informs me that the Egyptian polyglot (v. last *Report*, 25) of which there is a leaf at the British Museum is represented at Oxford in the Bodleian Library by half a leaf, containing *Luke* vii, 37-39, 42-44.

A general article<sup>4</sup> by the Archimandrite CHRYSOSTOM PAPADOPOULOS on the points of contact between Greeks and Egyptians has something to say on the development of the Coptic alphabet and the translation of the Scriptures into Coptic.

In the new volume<sup>5</sup> of *Oxyrhynchus Papyri* GRENFELL and HUNT publish Greek fragments from *Leviticus* xxvii, 12, 15-16, 19-20, 24; *Psalms* lxxxii, 6-19, lxxxiii, 1-4; *1 Peter* v, 5-13; and *Romans* i, 1-10, viii, 12-27, 33-39, ix, 1-3, 5-9.

In a preliminary notice<sup>6</sup> of the forthcoming Part II (non-literary texts) of Hunt's catalogue of the Rylands Greek papyri (for Part I, literary documents, v. *Report* 1911-12, 57), J. H. MOULTON calls attention to words and phrases throwing light on the Greek Bible. In this connexion I should have mentioned last year the appearance of the first part of his *Vocabulary of the Greek Testament illustrated from the Papyri*, which is almost a lexicon in itself.

<sup>1</sup> This year the Bibliography must necessarily be both brief and imperfect: fewer books on the subject have been published, some periodicals have ceased publication, and others are inaccessible to me. I shall be very grateful for references of any articles that may have appeared and have remained unknown to me for incorporation in the Bibliographies of future years. I owe some references to the kindness of Marous Simaika Pasha.

<sup>2</sup> *Wiener Zeitschr. f. d. Kunde d. Morganl.* xxviii, 253, 307.

<sup>3</sup> *Journ. Theol. Stud.* xvii, 78.

<sup>4</sup> *Oxyrhynchus Papyri*, xi (1915) 1351-5.

<sup>5</sup> *Ecklesiastische Papyri*, xiii, 417.

<sup>6</sup> *Musdon*, III, i, 89.

2. *Apocryphal, Gnostic.*—The second volume<sup>1</sup> of the *Evangiles Apocryphes* in the Henumer-Lojay series consists of the *Gospel of the Infancy*, edited by PEETERS. He gives French translations of the Arabic and Armenian versions (the latter hitherto almost inaccessible); and in an appendix compares the various versions of a single episode (Jesus at school) of the *Gospel of Thomas*. A review<sup>2</sup> by M. R. JAMES goes deeply into the question of sources; but he opines that much work has yet to be done, both in editing and translating, before we are able to construct a satisfactory *stemma*.

A. OCHTMANN publishes<sup>3</sup> some Ethiopic fragments of a new recension of the stories of the childhood of Jesus known as the *Gospel of Thomas*.

JOSEPH KROLL's essay<sup>4</sup> on the teaching of Hermes Trismegistus appears to be an important work. A full review of it by BOUSSET describes<sup>5</sup> its contents and object.

Between recipes for a purge and a cure for strangury and wounds in an Oxyrhynchus papyrus occur<sup>6</sup> two theological extracts, perhaps inserted as a kind of charm, from apocryphal works. In the first, one of the disciples is speaking; he describes how men met them in the desert, asking for a cure for the sick, and how Jesus gave olive oil and myrrh for them that believed in the name of the Father, the Holy Ghost, and the Son (observe order); in the second the angels go up to heaven with a sponge, asking Iao Sabaoth for a cure for their eyes. GRENFELL and HURST make suggestions as to the various apocrypha from which these may possibly have been excerpted.

3. *Liturgical.*—A calendar of Church Services (*συνάγεις*, nearly = *stationes*) held at Oxyrhynchus A.D. 535-6, published<sup>7</sup> by GRENFELL and HURST, is unique in the literature of early Christian Egypt, and is an invaluable memorial of Church practice in the 6th century. The conclusions to be drawn from it are far too long even to be summarised here; but we obtain much information about the ecclesiastical year, the churches existing at Oxyrhynchus, and the saints venerated; among the latter there are some curious omissions, as well as some difficulties in the names actually given. The document is dated "after the descent of the patriarch (τὸν πάταρα) to Alexandria"; the patriarch at this time was Timothy IV; but Crum suggests that the great Severus of Antioch may be meant, who was at this time in Egypt and an object of the utmost veneration to the Monophysite Copts.

R. GRIVEAU has re-edited<sup>8</sup> in a single volume the chapter of Biruni on the calendar of the Melchites, that of Maqrizi on the calendar of the Copts, and a very brief Maronite calendar, doubtfully attributed to Gabriel ibn el-Qolai. The text of the chapter of Maqrizi had been established by the late LUCIEN LEROY (Gaston Wiet's edition has not yet arrived at this point) by comparing three Paris MSS with the Boulaq print of 1854.

Nau's *Menologia* (v. last Report, 27) are noticed<sup>9</sup> by I. G[UNDT], who remarks on the extreme corruption of many of the proper names.

<sup>1</sup> *L'Évangile de l'Enfance*, Paris, 1914.

<sup>2</sup> *Journ. Theol. Stud.* xvi, 268.

<sup>3</sup> *Wiener Zeitschr. f. d. Kunde d. Morgenl.* xxviii, 1.

<sup>4</sup> *Özyrhynchus Papyri*, xi (1915), 1384.

<sup>5</sup> *Die Lehre des Hermes Trismegistos*, Münster i. W., 1914.

<sup>6</sup> *Theol. Lit. Zeit.* xl, 120.

<sup>7</sup> *Özyrhynchus Papyri*, xi (1915), 1357.

<sup>8</sup> *Patrol. Orient.* x, 4.

<sup>9</sup> *Riv. Stud. Orient.* vi, 1023.

The first volume<sup>1</sup> of a most valuable collection of the alphabetical hymns so dear to the modern Coptic Church is edited by the *Hegoumenos Philothetus el-Maqāri* and the *Mu'allim Michael Gircis*. The hymns follow the order of the calendar, and are often the work of the poet Nicodemus; it is only a pity that they tell us so little of the story of the saints celebrated, being mostly pious reflexions on a conventional scheme.

The Anglican Bishop in Jerusalem (Dr MACINNES) mentions<sup>2</sup> that the Copts are employing more Arabic in their services, and congratulates them upon it. It is greatly to be hoped that this does not mean that Coptic is to be dropped for any of the central portions of the Liturgy. He also mentions some of the problems with which the modern Church of Egypt has to deal.

4. *Church Literature*.—I am told that Fr. ZOKPPI has published<sup>3</sup> "Didymus Alexander, in epistolas canonicas brevis narratio" at Munich.

Tollington's study of St Clement (*v. last Report*, 29) is reviewed<sup>4</sup> by G. A. CHASE, who points out the lessons to be learned from his life and work, not so much in finding out an answer to modern problems as in providing an example of the spirit in which such problems should be approached.

The most important publication<sup>5</sup> of texts during the year is that of the Phillipps papyrus by CRUM. It is in the form of a dialogue—theological questions and answers—the speakers being the patriarch Theophilus, his nephew and successor Cyril, the abbot Horsiose, and a certain Agathonius, Bishop of Tarsus, otherwise unknown. The papyrus may well be of the 6th century, and quite apart from its theological interest, of which an estimate is made in the same volume by A. ENRHANN, it is an example of good and pure Sahidic of the best age. It possesses the peculiarity, perhaps shared by only one other Coptic MS, that many of the Greek words employed are accented (usually correctly). As the editor's name guarantees, introduction, edition, translation and notes leave nothing to be desired.

Crum's Amherst-Morgan theological texts from papyri (*v. Report*, 1912-13, *passim*) are noticed<sup>6</sup> by M. R. JAMES, who recapitulates the contents of the book with brief comments.

Leipoldt's new volume of Simithian texts (*v. last Report*, 29) is reviewed<sup>7</sup> by SPIEGELBERG, whose great grammatical knowledge and skill serves him in good stead in making a few emendations and in showing that some made by L. are unnecessary.

I should previously have noticed COXON ROSSINI's edition<sup>8</sup> of the Ethiopic text of the Sermon attributed to Theophilus of Alexandria on the stay of the Holy Family on Mount Qosqam, to which my attention has now been drawn by a review<sup>9</sup> by SCHLEIFER.

A. PÉRIER completes<sup>10</sup> (*v. last Report*, 30) the publication of the Arabic text of the letter of Pisentius of Qeft to his diocese, and gives one or two bibliographical indications of previous work on the subject.

<sup>1</sup> *Kitâb al-âhâdîkât wa l-qâribât*. Cairo, A.M. 1630.

<sup>2</sup> *Church Times*, 23 July, 1915.

<sup>3</sup> *Deutsche Lit. Zeit.* 1915.

<sup>4</sup> *Journ. Theol. Stud.* vii, 431.

<sup>5</sup> *Der Papyrus-kodex nos. vi-vii der Phillippsbibliothek in Cheltenham*, Strasburg, 1915.

<sup>6</sup> *Or. Lit. Zeit.* xvii, 505.

<sup>7</sup> *Journ. Theol. Stud.* xvi, 272.

<sup>8</sup> *Or. Lit. Zeit.* xl, 122.

<sup>9</sup> *Bendiconti della R. Accad. dei Lincei*, xxi, 6.

<sup>10</sup> *Res. Or. Chret.* xix, 302.

What appears to be the end of a Saïdic sermon is published<sup>1</sup> by SIR HERBERT THOMPSON, in the hope that the author of it may be identified. It seems to contain a simile drawn from ships laden with good and bad merchandise.

5. *History, Legends, etc.*—The fourth section<sup>2</sup> of the *History of the Patriarchs of Alexandria*, edited and translated by EVERETT, reaches from Menas I (A.D. 767) to Joseph (d. 849). It brings to an end the first part of the *History*, and the editor supplies a provisional list of errata and a brief index of the patriarchs' names.

A mysterious passage in the Sibylline Oracles (xiv, 284-361) is interpreted<sup>3</sup> by WALTER SCOTT as a Jewish account of the fortunes of Lower Egypt from the Persian occupation (617) until the final re-taking of Alexandria by 'Amr in 646. He examines very closely the passage, which is profoundly corrupt, accepting generally Butler's account of the Arab conquest.

D. CALLIMACHUS argues<sup>4</sup> once more against the identity of the Muqauqis with Cyrus, Melchite Patriarch and Viceroy of Egypt. His brief article in English is not so persuasive as his previous longer treatise in Greek.

A review<sup>5</sup> by CRUM of the late Van Cauwenbergh's work on Egyptian monasticism between 451 and 641 (v. last *Report*, 31) makes some suggestions on the names of persons and places, adds some notes of unpublished sources, and claims for Shenoute a passage which Van C. had attributed to Besa.

GASELEE adds<sup>6</sup> two Bohairic hymns to Shenoute to those already published by himself (v. last *Report*, 32) and by Leipoldt.

The Saïdic texts of the Berlin MS. Or. fol. 1350 are published<sup>7</sup> by G. HOERNLE. (1) A fragment of the life of St. Pachomius relating an adventure with a crocodile which is (a) longer than the Boh. version, (b) different from a Sa', fragment previously published by Amélineau, indicating that there existed a more or less independent Sa', work on the life of the Saint. (2) A fragment of a sermon on heresy apparently aimed at Origen. (3) A speech of Christ, addressed to his Mother, glorifying her.

Another volume of the Coptic texts from British Museum MSS, edited by BUDGE, is announced<sup>8</sup> as being in preparation and partly printed off. His last volume of "Martyrdoms" (v. last *Report*, 31) is reviewed<sup>9</sup> by M. R. JAMES, who supplies the leading details as to the originals (where they exist) of the Coptic texts—a valuable and necessary supplement, without which the value of the original volume is gravely impaired.

An Ethiopic MS in the Hugues Le Roux collection, described<sup>10</sup> by CHAINE, contains a dozen sermons (one for the 12th of each month) on St Michael. Among them we find the well-known sermon of Timotheus, the story of Dorotheos and Theopiste, and other legends well known in the Egyptian cult of the Archangel.

Gaselee's two numbers of *Parerga Coptica* (v. *Reports* 1912-13, 68 and 1913-14, 32) are analysed<sup>11</sup> by P. V[AN] D[EN] V[ER]

<sup>1</sup> *Ancient Egypt* 1915, 9.

<sup>2</sup> *Patrol. Orient.* x, 5.

<sup>3</sup> *Classical Quarterly*, ix, 144, 207.

<sup>4</sup> Ἐκεληστατικός Φάρος, xii, 477.

<sup>5</sup> *Musön*, III, i, 123.

<sup>6</sup> *Musön*, III, i, 116.

<sup>7</sup> *ÄZ*, iii, 119.

<sup>8</sup> *British Museum Annual Return*, London, 1915, 24, 63, 64.

<sup>9</sup> *Journ. Theol. Stud.* xvi, 271.

<sup>10</sup> *Rev. Dr. Chret.* xix, 256.

<sup>11</sup> *Musön*, III, i, 123.

Wensinek's texts on St Hilaria (v. *Report* 1912-13, 60) are reviewed<sup>1</sup> by I. O[VIDI], who has some remarks on the Karshuni text and the Egyptian origin of the story.

6. *Non-literary texts*.—The Munich half of the Assuan find of papyri (v. last *Report*, 33) is published<sup>2</sup> by HEISENBERG and WENGER. A review<sup>3</sup> by the late JEAN MASPERO points out several references of interest. An oath is taken by the ἄντλια καὶ ὁμονύμιος Τριάς τῶν χριστιανῶν: why are the last two words added? A priest Seren of Omboi is chosen as arbitrator by two litigants. M. quotes a partial parallel from an unpublished Cairo papyrus.

CLÉDAT publishes<sup>4</sup> in full the (Coptic) inscriptions of the monastery of St Simeon opposite Assuan. Several will repay further study—some need completion, one at least is cryptographic. One bears the late date of A.D. 1404. C. also publishes some Christian grave-inscriptions (mostly Greek) from various places in the Isthmus of Suez.

The curse published by Hengstenberg (v. last *Report*, 33) is analysed<sup>5</sup> by M. MAAS, with some allusion to its sources.

7. *Philological*.—A. ERMAN comments<sup>6</sup> briefly on the lack of a modern Coptic lexicon, on the double value (Egyptological and early Christian) of such a Lexicon, and mentions that the work has been undertaken by Crum: but that it is likely to be delayed, as the collaborators belong to most of the nations now at war.

The fifth part<sup>7</sup> of CLAUDIOUS Bey LARIBE's dictionary has now appeared, embracing the words from the beginning of *μ* to the end of *ε*. There are many small points of usage and miscellaneous pieces of information which can only be found in the knowledge of a born Copt, and the work now approaching completion is indispensable to lexicographers of the language.

ZETTERSTÉEN continues<sup>8</sup> (v. *Report* 1911-12, 71) his publication of Arcangelo Carradori's Italian-Nubian dictionary.

With τοῖς ὑποτεσσοῖς ἥτοι τχρῆς of an Assuan papyrus (v. last *Report* 33), the late JEAN MASPERO compares<sup>9</sup>, in an unpublished papyrus at Cairo, ξελιωθαστακή ἥτοι πκωμ.

SPIEGELBERG continues<sup>10</sup> (v. *Report* 1911-12, 70) his Coptic *Miscellen*. He examines the extension of the postponed *ne* of the Imperfect to other tenses, mentioning the parallel in demotic, and deals with the meanings of the obscure verbs τῆπε to be afraid, and τεφαγός to pass the bloom or die (of plants). Von Lemm (v. last *Report* 34) had doubted the existence of the word γωδα stimulate found in the Lexicons: S. supports what was before a *hypozlegomenon* by its use in a passage of the martyrdom of St Coluthus. The same scholar's separation of νοεῖ to imitate and \*νοεῖ (νεξ-) to tame is supported by usage in the ancient language. The verb νεχπ (cf. νοχη, νοχπ)

<sup>1</sup> *Riv. Studi Orient.* vi, 1021.

<sup>2</sup> *Byzantinische Papyri in der...Bibliothek zu München*, Leipzig (Taubner) 1914.

<sup>3</sup> *Byz. Zeitschr.* xxii, 226.

<sup>4</sup> *Rec. de Tras.* xxvii, 41, 36.

<sup>5</sup> *Theol. Lat. Zeit.* xxxix, 446.

<sup>6</sup> *Jahresbericht der Wentzel-Schifung*, Berlin, 4 February, 1915.

<sup>7</sup> ΜΑΝΟΣΧΙ ΠΡΕΜΙΤΧΩΜΙ (Qāmūs el-lughat el-yibṭah) Cairo, Heliopolis Press, A.M. 1931.

<sup>8</sup> *Le Monde Oriental*, viii, 203; ix, 17.

<sup>9</sup> *Byz. Zeitschr.* xxii, 229.

<sup>10</sup> *Rec. de Tras.* xxvii, 17.

is recognized in *Luke v.* 39; and finally a use of the interrogative *aq* in the sense of "such and such" is established, with which we may compare the double use of *naw*, while S. shews that just occasionally the other interrogatives *or* and *orup* are analogously employed. He also traces<sup>1</sup> the forms assumed in Coptic by the prefixed *-ain* which in ancient Egyptian gives generality to time and place: and continues<sup>2</sup> his study into the origin of *akhet*-*tcu* by shewing that it came to be used to mean "the year of the induction" when the meaning "the year of the reign" was no longer required.

SETHE examines<sup>3</sup> the forms *qaq-cwtm* and *et-q-cwtm*, seeing in them the remains of a demotic verb *wb* (older *w/b*).

G. MASPERO suggests<sup>4</sup> that the final *-t* which marks the feminine in Egyptian may derive its origin by false analogy from the word for mother, *\*maouat*, which has become *mat* in Coptic: the *-t* would have been wrongly considered a separable feminine affix and used with other words. But this view seems to neglect the constant use of the feminine *-t* in allied languages, such as the Berber, in which it is both prefixed and affixed to the same word.

The qualitative form *pqqnq* is well-known: H. WIESMANN adds<sup>5</sup> *pqqnq*, remarking that the grammatical form is curiously rare, seeing that there is no philological objection to it. The same scholar suggests *tuqhe* as the origin of the Spanish *adobe*, which has now passed into other languages.

A careful account of the modern pronunciation of Coptic by the officiating clergy is given<sup>6</sup> by G. P. G. SORBY: he supplies an alphabet with Arabic and English equivalents. He holds that the pronunciation is really the same all over Egypt (except for some local peculiarities at Girgeh), and that the traditional pronunciation—of which there are, unfortunately, signs of weakening—represents an ancient and correct tradition. It is much to be wished that some gramophone records could be obtained of the enunciation of some of the older priests.

C. A. G. MACKINTOSH describes<sup>7</sup> the rather chaotic state of the transliteration of Egyptian Arabic names, with especial reference to map-making, and pleads for a reasonable system inclining neither to laxity nor pedantry. He gives some remarkable examples of the change of value in letters among the peoples of the Libyan and Nubian deserts.

In 1910 CARL MEINHOF delivered a course of lectures before the Colonial Institute at Hamburg giving a sketch of the linguistic problems raised by African languages and their classification, with the practical and theoretical value of a knowledge of them in questions of general philology. These are now<sup>8</sup> translated by A. WERNER.

I am told that JUNKER and CZERMACK have published some texts in the Kordofan Nubian dialect of Gebel Dair, and that they have been reviewed<sup>9</sup> by W. MAX MÜLLER.

Two letters from Champollion le Jeune to Sir William Gell, published<sup>10</sup> by

<sup>1</sup> *ÄZ*, ii, 122.

<sup>2</sup> *Ibid.* ii, 135.

<sup>3</sup> *Ibid.* iii, 112.

<sup>4</sup> *Ber. de Tras.* xxvii, 16.

<sup>5</sup> *ÄZ*, iii, 130.

<sup>6</sup> *Journ. Eg. Arch.* ii, 15.

<sup>7</sup> *Cairo Scientific Journal*, viii, 152.

<sup>8</sup> *Ibid.* viii, 152.

<sup>9</sup> *An Introduction to the Study of African Languages*, London, 1914.

<sup>10</sup> *Or. Lit. Zeit.* xvii, 474.

<sup>11</sup> *Journ. Eg. Arch.* ii, 76.

H. R. HALL, shew very typically how the knowledge of Coptic was employed in the process of fixing the values of the hieroglyphs.

8. *Art, Archaeology, Excavations.*—The attitude of St Clement towards art is the subject of a careful investigation<sup>1</sup> by G. W. BUTTERWORTH (St Clement does not seem to have recognized Egyptian art apart from Greek art). B. sees in his teaching—*distrust* of art—the germs of the future iconoclastic controversy.

E. B. SMITH (of Princeton) touches<sup>2</sup> incidentally upon representations of the Ascension in Coptic art.

Two pieces of Coptic woven embroidery, one in wool, added to the Victoria and Albert Museum, are figured<sup>3</sup> in the year's list of acquisitions.

Coptic methods of weaving, hemming, and stitching during a thousand years are described<sup>4</sup> in a valuable pamphlet, which breaks new ground, by LAURA START. Her investigations, as a practical sempstress, into the various stitches employed and the development of design seem really to help in the most difficult questions of dating.

The late JEAN MASTERO publishes<sup>5</sup> a fine Coptic bas-relief at Cairo which seems to shew a sculptor of the fifth or sixth century of our era using an artistic theme (*the barque au marais*) of the Old Empire. He diverges from the description of this to a hostile consideration of the views of Strzygowski on the origin of Coptic art.

At Mahemdiyah in the Isthmus of Suez CLÉDAT found<sup>6</sup> a small family altar with the cross used as an ornament. He gives an illustration of it.

From a review<sup>7</sup> by C. M. KAUFMANS I hear of a publication by H.R.H. JOHNS GEORGE, Duke of Saxony, on travels through the Churches and Monasteries of Egypt, published at Leipzig.

I should have mentioned last year an article<sup>8</sup> on the history of the Synagogues of Egypt by J. MOSSERT, which gives many interesting details of the way in which Coptic Churches passed into Jewish hands and vice versa.

The Egyptian department at the British Museum has received<sup>9</sup> as a gift from SOMERS CLARKE various maps, plans, drawings and papers on the subject of his work on the Churches of Egypt (*v. Report, 1912-13, 66*): and from the Egypt Exploration Fund various articles of Coptic clothing, lamps, and a book-binding.

H. E. W[INLOCK] describes<sup>10</sup> the excavations carried out by himself and H. G. EVELYN-WHITE on the site of the Monastery of St Epiphanius near Thebes during the winter of 1913-14. It seems to have been founded about the middle of the sixth century and inhabited for the next 150 years: W. is able to describe in some detail its early history and to reconstruct from objects found the ordinary life of the inmates. The amount of Coptic material found, both inscriptions and ostraca, is very considerable, and is in the hands of Crum for publication: there are also some Greek pieces of considerable interest, which will be published by Evelyn-White.

<sup>1</sup> *Journ. Theol. Stud.* xvii, 68.

<sup>2</sup> *Byz. Zeitschr.* xlii, 223.

<sup>3</sup> *Victoria and Albert Museum, Acquisitions in 1914.* London, 1915, pp. 62, 63.

<sup>4</sup> *Coptic Cloths.* Bankfield Museum, Halifax, 1915.

<sup>5</sup> *Roc. de l'Inst.* xxvii, 97.

<sup>6</sup> *Ibid.* xxvii, 37.

<sup>7</sup> *Deutsche Lit. Zeit.* 1915, No. 6.

<sup>8</sup> *Jewish Review,* May 1914, 31.

<sup>9</sup> *British Museum Annual Return,* London, 1915, 73, 74.

<sup>10</sup> Bulletin of the Metropolitan Museum of Art, New York, vii, 189; ix, 207; x, 128 and no. 2, supplement.

9. *Miscellaneous*.—The Arabic weather-sayings of Egypt are the subject<sup>1</sup> of a long and careful article by MOHAMMAD Bey KASIM. They depend very largely upon the calendar of the Coptic year, and have much to do with the height of the Nile, the temperature, and the winds. The author remarks incidentally that about 75 per cent. of the modern Egyptians use only the Coptic dates, so far as the month and day of the month are concerned. Those to whom the original is inaccessible may find a notice<sup>2</sup> of the work in an English periodical.

At Kharga (and Dakhla?), W. J. HARDING KING tells us<sup>3</sup>, as a charm against the evil eye a black cross is painted or smeared on the back of a child's hand if he is fat or on his forehead if he is good-looking. The custom is supposed to be derived from the Copts, of whom a large number formerly inhabited the Oases.

A letter is published<sup>4</sup> from the Anglican Bishop of Khartoum (Dr Gwynne) to the Coptic Bishop, defending the character of Marcus, a priest in the Coptic Church in that city, who has been impeached "by two or three of the querulous men in Khartoum, who hate to see the Coptic Church here as a living Spirit among the people." He fears that a condemnation will have serious results, "as on this priest does the welfare and progress of the Coptic Church in the Sudan depend."

STEPHEN GRAHAM describes<sup>5</sup> his reception and entertainment at a monastery in the Nitrian desert.

The death<sup>6</sup> of JEAN MASPERO (killed in action in the Argonne on Feb. 18, 1915) at the early age of 29 is an irreparable loss in the field of Egyptian-Greek palaeography. The catalogue of the Cairo Greek papyri, of which two volumes have appeared, will hardly be able to proceed; and many other minor works shew his unique knowledge of the Greek antiquities of Egypt in Byzantine and Arab times.

At the same age died<sup>7</sup> PAUL VAN CAUWENBERGH, lecturer on philosophy at the minor seminary at Malines. His work (v. last Report, 31) on the monks of Egypt between Chalcedon and the Saracen invasion gave great promise. He died on October 21, 1915, at the house of his brother, Mgr Jean van C., Vice-Rector of Louvain.

It is also sad to have to chronicle the death<sup>8</sup> of F. ROESCH, to whom we owe the publication of the Strasburg Akhmimic papyrus and a most valuable sketch of Akhmimic grammar (v. Reports 1908-09, 65 and 1910-11, 65).

The new régime in Egypt opens up several interesting questions in connexion with the Christian patriarchates there. AZIZ Bey KHANKI discusses<sup>9</sup> them from a legal point of view, and makes some important suggestions as to the best constitutional method of dealing with them.

C. G. SELIGMAN touches<sup>10</sup> on the history of Christianity in what is now the Anglo-Egyptian Sudan, together with the veneration for Queen Soba between the Blue and White Niles.

P.S.—Since this Bibliography has been in type, Hunt's *Rylands Papyri* (p. 50) and Budge's new volume of texts (p. 53) have appeared.

<sup>1</sup> *Cairo Scientific Journal*, viii, 209.

<sup>2</sup> *Nature*, 19 August 1915, 688.

<sup>3</sup> *Cairo Scientific Journal*, viii, 167.

<sup>4</sup> *El-Watan*, Cairo, 23 September 1914.

<sup>5</sup> *Times*, 2 July 1915; and *The Way of Martha and The Way of Mary*.

<sup>6</sup> *Jours. Eg.-Arch.* II, 119.

<sup>7</sup> *De Stem uit Belgie*, 19 November 1915.

<sup>8</sup> *ZA*, III, 131.

<sup>9</sup> *El-Ahram*, Cairo, 3 January 1916.

<sup>10</sup> Address to Anthropological Section of British Association, Manchester, 1915.

## NOTES AND NEWS

It appears that the consignment of the July number of the *Journal* destined for our American subscribers, and despatched from England on Aug. 16, went down on the torpedoed S.S. *Arabic*. We understand that a valuable and important Egyptian statue, consigned to the Metropolitan Museum of New York, went down on her also. So the futile "Gottstrafers" made war on science as well as on harmless passengers on a steamer proceeding from England to America, and therefore by no human possibility conveying ammunition to England. We hope to be able to send out a further consignment of the number to America for our subscribers there, but if they do not all obtain copies it is the fault of the Huns. We need hardly fear a repetition of the occurrence, now that the Navy has crushed the German submarines in our waters and has made Grand-Admiral Tirpitz's so-called "blockade" look even more ridiculous than when it began.

Prof. Whittemore, who has been in Bulgaria for some time past, went to Roumania and thence to Russia, after Tsar Ferdinand's entry into the war on the side of the Turco-Germans, and is now proceeding to Egypt, where he will endeavour to make arrangements for our American Committee's projected excavation this winter. The site of Tell Tibelleh, which, for reasons that at the time seemed cogent, was rejected by Prof. Whittemore last winter, has again been offered by the Egyptian Department of Antiquities, and will be re-examined with a view to excavating it if this is deemed advisable or permitted by the military authorities.

On Oct. 6 a lecture was delivered at the Royal Society's Rooms, Burlington House, by Mr G. A. Wainwright, on "the Excavations at Babash," illustrated by lantern pictures, which well showed the interesting antiquities from the pan-graves discovered by the American Committee's expedition under Prof. Whittemore and the lecturer. In spite of the preoccupations and additional duties imposed upon so many of our members and subscribers by the war, the attendance was good, and the Committee have every intention of proceeding with our programme of lectures as usual during the winter.

Mr T. E. Peet has received a commission as Second-Lieutenant in the Army Service Corps, dating from October 1915, and has proceeded on duty to the Mediterranean.

The new volume of *Oxyrhynchus Papyri* (xi), which was published in September, consists entirely of literary texts with the single exception of a sixth-century calendar of church services which has been included in the theological section. This calendar, which gives a list of special services at various churches in Oxyrhynchus during a period of five months, is one of the most valuable documents concerning the early Egyptian Church so far recovered. The other items in this section are fragments from the LXX and N.T., some of them dating from the third and fourth centuries, and remains of lost treatises of Philo. In the new classical texts, fragments of two distinct rolls give portions of the Hesiodic *Catalogue*, which was evidently a popular work in Egypt. Lyric poetry is represented by some additional pieces from one of the Alcaeus papyri published in Part x, and secondly by a number of fragments—mostly, unfortunately, small—of the *Scolia* of Bacchylides, a class of his poems which does not figure in the British Museum papyrus. The surviving remains of Callimachus are augmented by a well-preserved column from the *Aetia*, and a mutilated fragment from the *Iambi*. Some considerable pieces from the treatise 'On Truth' by the sophist Antiphon afford valuable and unexpected evidence concerning his teaching, and are besides a welcome addition to the relics of early Attic prose. The authorship of a couple of columns narrating the early career of Orthagoras, founder of the tyranny at Sicyon, is uncertain; on the whole Ephorus seems to be the most likely claimant. Another interesting fragment comes from an epitome by Heraclides Lembus of the treatise of Hermippus 'On Lawgivers,' which throws new light upon the work of Heraclides as an epitomizer. Extant classics include fourteen Homeric papyri, of which collations are printed, some fifth-century fragments of Sophocles (*Oed. Tyr.*) and Euripides (*Med.* and *Orest.*), pieces of Aristophanes (*Clouds*, *Frogs*, *Peace*, *Knights*, *Wasps*) of the same period, of Herodotus vii, Thucydides vii, Demosthenes (*De Cor.* and *Mid.*) and Livy i. Of these the most important is the Thucydides (about the end of the second century), which is not only much the longest Thucydides papyrus hitherto discovered, but is of considerable textual interest. The volume concludes with a group of Graeco-Egyptian texts, prominent among which is a roll containing on one side a long and elaborate invocation of the goddess Isis, comprising a list of her various titles in different localities, and on the other a somewhat similar composition in praise of Imhotep-Asclepius.

A. S. H.

In the American *Journal of Philology* 1915, pp. 185—202, Mr F. G. Allinson gives an improved arrangement of some of Menander's "Epitrepones" based upon the additional material afforded by *Oxyrhynchus papyrus No. 1230*.

That new manuscript contains 22 lines corresponding with two pieces of the Cairo text, and also some mutilated ones which prove that pieces previously assigned to the "Periceiromene" really belong to the "Epitrepones." Mr Allinson's readjustment renders the dénouement of the plot clearer, and will have to be taken into account by future editors.

J. O.

The British Museum has produced another thick volume of Coptic Texts, trans-literations of MSS by Dr Budge, with translations, facsimiles, and indices by the same hand. The MSS originally formed part of the libraries of the monasteries and churches of Edfu and Esna, and most of them were acquired for the Trustees of the Museum by Dr Budge in 1907-8. This pioneer edition has been produced in order to make the texts accessible as soon as possible. There are in all eighteen Coptic texts, with three in Ethiopic added, containing Encomia on the Blessed Virgin Mary; Histories of the Three Great Archangels Michael, Gabriel, and Raphael; the Martyrdoms of Pseu, Bishop of Psu, of Mercurius, and of Theodore the Anatolian, the History of the Monks by Paphnutius, the Apocalypse of Paul, etc. All these texts are in Sahidic, and are published for the first time. The "Martyrdoms" contain some of the wildest perversions of history that can be conceived, mixed up with purely legendary matter of great interest. We hope that a full review of this remarkable collection of Coptic texts will appear in our April number. Meanwhile, the book can be commended to those whose studies lie in this direction.

H. H.

The ninth volume of the *Bulletin* of the Metropolitan Museum of New York contains a short preliminary account of the discovery in the season of 1912-13 by the Museum's expedition at Thebes of the great causeway leading up from the cultivation by the side of the hill of Shâkh 'Abd el-Kûrna to the pyramid-temple of King Neb-hapet-Ra Mentuhetep, which was discovered for the Fund in 1903 by Prof. Naville and Mr Hall, and excavated by them with the assistance of Mr Ayrton, Mr Currelly, and others from that year till 1907, thus worthily continuing the Fund's work at Deir el-Bahri. We may regret that it was not left to us to complete our work with the discovery and excavation of the causeway too, but can congratulate heartily our American colleagues on their achievement of it.

Mr H. E. Winlock now adds to this publication a very informing article in the October number of the *American Journal of Semitic Languages and Literatures* on "The Theban Necropolis in the Middle Kingdom," which adds considerably to our knowledge. He discusses our temple at length, accepting the view of Dr Borchardt (with which we believe Prof. Naville does not agree) that it was so rebuilt by that hardly any of the original work of remains except the shrines of the Princesses, and that the *ka*-sanctuary was the actual tomb of the former king. However this may be, the independent views of von Bissing (*Rec. Trav.* xxxiii) and Hall (*Anc. Hist. Near East*, p. 143) to the effect that and were really one and the same king, who changed his prenomen and Horus-name during his lifetime (this need not of course be negatived by an acceptance of Borchardt's theory: the king may have altered the temple after he changed his name), are not accepted by Mr Winlock, who prefers to regard them as distinct personages, Neb-hapet-Ra and Neb-hepet-Ra. He differs from Mr Hall's reconstruction of the dynasty in placing Neb-tau-i-Ra after , Neb-hepet-Ra.

Mr Winlock's description of recent excavation results at Kurna is very interesting reading, and his views as to the "inspiration" of the Mentuhetep temple, which differ from Dr Borchardt's, are worthy of attention.

We may note that in the statement of the provenance of the stele, door-jambs, and lintel of the tomb of Thethi, now in the British Museum, given by Scott-Moncrieff, *B. M. Hieroglyphic Texts*, i, p. 16, on which Mr Winlock comments (p. 17 n.), the word "Karnak" is obviously an uncorrected misprint for "Kurnah": the provenance is given as Kurnah by Budge, *B. M. Guide to the Egyptian Collections: Sculpture*, as Mr Winlock notes. He says that the provenance "Karnak" is "highly improbable," which it is: the obvious misprint has escaped him.

Prof. Petrie desires us to state that, so far from the concession of the British School of Archaeology at Memphis having been relinquished, as might be supposed from the concluding paragraph of the article printed on pp. 45—47, an answer is still awaited by him from the Egyptian Department of Antiquities with regard to the terms of the new law. He has commented on the matter in the current number of *Ancient Egypt* (1915, Part IV, p. 191).

[With reference to Prof. Petrie's statement printed above, we think that probably some misunderstanding has arisen which we hope will speedily be removed. Ed.]

In the neighbourhood of the Sporting Club grounds near Alexandria some workmen when sinking a new well for the British Army encampment there, came upon the roof of a tomb. As soon as the Municipality were informed of the discovery, Dr Breccia, director of the Museum, went to the site, and commenced careful excavations. The first sepulchre found has an entry in the form of a passage, leading to three chambers, one communicating with the other. Upon each wall there are four loculi. Fortunately also at the side of these, are Greek inscriptions with the names of the dead, and rude representations of Isis. The lower part of this tomb is filled with water but others are being opened up, there being quite a series of them, and some small terra cotta altars have been found, also a leaden sarcophagus, and Roman pottery. All the ground between the Sporting Club and the sea, and coming along the shore westward as far as Sidi Gabir is known to contain many tombs of the Roman era, chiefly of soldiers, because a large Castra was thereabouts, just as the British barracks and camp have now for many years been at Mustapha near by. It is probable that the tombs just uncovered are of Roman soldiers, though they may have first been prepared for Greek mercenaries, and then re-used in Roman times. Doubtless the inscriptions will fully disclose their origin and use, and the whole matter being in the able hands of Dr Breccia assures us that the scientific results will be carefully looked after.

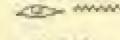
J. O.

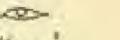
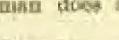
For reasons of economy connected with the war, the Fund has found itself obliged to forgo the association with its work of the Rev. F. G. Walker as Organizing Secretary and Editor of the *Journal of Egyptian Archaeology*. In future the duties of the Organizing Secretary will be carried out at 37 Great Russell Street by the Secretary, Miss E. Paterson, to whom all communications with regard to lectures, etc., should be addressed. The present number of the *Journal* is edited by the Hon. Secretary, Mr H. R. Hall; but future numbers, till the end of the war, will be under the scientific oversight of Dr A. H. Gardiner. Mr J. S. Cotton, our late Hon. Secretary, has kindly consented to place his great editorial experience at our disposal as business editor, and all enquiries as to advertisements and other purely business matters connected with the *Journal* should be addressed to him at 37 Great Russell Street. Books for review should be sent to the Secretary.

## NOTICES OF RECENT PUBLICATIONS

*The Temple of Derr. (Les temples immergés de la Nubie.)* By A. M. BLACKMAN. pp. 131; 71 pl. Cairo: Service des Antiquités, 1913.

Mr Blackman is to be congratulated on the share he has taken in recording for posterity the now submerged monuments of Nubia on behalf of the Service des Antiquités. His volume on the temple of Dendur has been followed by the present book which shows the same minute and patient work as its predecessor. The author is the more deserving of praise in that his subject cannot by any stretch of imagination be called inspiring. The temple is badly damaged, the reliefs are of the poorest workmanship, and their subjects are, with a very few exceptions, the most ordinary and uninteresting groups of gods and kings. Through this dull stuff the author has worked from beginning to end with the same thoroughness. His descriptions are clear and easy to follow, and the translations of the usually very formal inscriptions, given in well-chosen words, show an acquaintance with the latest discoveries in this branch of the language. At the risk of seeming pedantic we might, however, suggest that it is sometimes possible to be even more literal without doing violence to the English.

Thus on p. 73 to translate the words  "the making for him" gives a more exact rendering of the Egyptian infinitive than "making for him" which suggests the Egyptian participle, which we perhaps have in the doubtful passage on page 66, last line. Again, higher on page 63 we find the common phrase  rendered "that he might be given life." Is not this a little too free?

 is the usual "endowed with life," here used apparently as a compound noun, object to  "that he make an 'Endowed with life,'" "he," as certain parallel passages suggest, being the king and not the god. The phrase is a curious one in Egyptian and should remain so in English; whereas to translate as Mr Blackman does suggests that  is one of the common New Kingdom periphrases with , which for several reasons it cannot be. These are small points, worth mentioning only because the level of accuracy attained in the translations is so high.

In his preface the author speaks of the difficulties of photography in the dark inner rooms. He has succeeded admirably in overcoming these difficulties. All the plates are good and the left-hand picture in Pl. XXVIII is a particularly clever piece of lighting.

Not all have time to work through a volume of such size and minuteness, but those who have need to refer to it will instantly find what they want by means of the excellent indices, which increase the value of the book many fold.

T. E. G. PEET.

*The Temple of Bigeh*, by A. M. BLACKMAN, "Les Temples Immersés de la Nubie": Cairo: Service des Antiquités, 1915, pp. 72; 43 plates.

Mr Blackman has added a third volume to his valuable contributions to Sir Gaston Maspero's series "Les Temples Immersés de la Nubie," and *Dendur* and *Derr* have been succeeded by *Bigeh*. The plan of the book is the same as that of its two predecessors: a meticulous description is given of every

relief scene in the temple, and every hieroglyph on it is transcribed and translated. But a feature of the book which gives it a value apart from that which it possesses as a catalogue is the series of really magnificent photographs that are contained in its plates. These were taken for the Royal Academy of Sciences at Berlin, and have been used for this book through the friendly offices of Dr. Junker, the distinguished Viennese Egyptologist who contributed an important article to this Journal in October of last year. This is really a splendid example of international collaboration in scientific work. There was absolutely no need for Mr. Blackman to have spent time and the Egyptian Government money on new photographs when these splendid ones existed at the disposal of science and could never have been improved upon: they are the *meilleur art* of photography.

The temple itself stands beneath the rounded granite kopjes and boulders of now half-submerged Bigeh, directly opposite Philae. It is late Ptolemaic and Roman, but still not devoid of interest as a specimen of its type. Its fragmentary condition makes it improbable that it would ever have been recorded so completely as it is in this volume had not its threatened submergence rendered a catalogue of its contents absolutely necessary. Mr. Blackman has carried out his work with the same thoroughness as in the case of his former volumes in the series, and Miss Bertha Porter has, as before, materially contributed to its completeness as a record by her bibliographical work. Mr. Griffith has edited the Demotic Graffiti on the walls, and Prof. Hunt a small Greek inscription. We notice that the ex-Khedivial arms with their Turkish horse-tail standards, on the title-page and outer cover of the series, have disappeared in favour of the national triple crescent and star of the Sultanate of Egypt.

H. R. HALL.

*Early Egyptian Records of Travel*, by DAVID PATON, Vol. i: to the end of the XVIIth Dynasty. Princeton University Press, Oxford and London, Humphrey Milford, 1915. Price £7.50 nett.

Mr. David Paton is compiling a compendium of Egyptian inscriptions relating to travel in Western Asia, the first volume of which, up to the end of the XVIIth Dynasty, now lies before us. The work has a peculiar appearance, as it is cast in the form of a series of tables, containing the transcriptions and translations of the inscriptions dealt with, with references, typewritten and then photographed down to a smaller scale. At first this peculiar method of publication gives an impression of complete unreadability. Not of illegibility: the tables are very legible. But a good many people will need a magnifying glass to read them, and in any case their peculiar appearance looks as if it would be tiring to the eye, especially in the case of the transliterations. However, as a matter of fact the eye gets accustomed to the odd-looking type, and the method has no doubt saved much expense in the way of printing. The work of typing has been performed by Mr. George Vincent Weller, to whom Mr. Paton pays a deserved tribute. The work must have been one of great difficulty, and we cordially endorse the author's "high appreciation of the skill, care, patience, and intelligence" with which it has been performed.

Mr. Paton begins with the Sinaï inscriptions; and it is a pity that he did not await the appearance of Messrs. Gardiner and Peet's complete edition of them for the Egypt Exploration Fund before embarking on his task. However, one must do one's work some time or other, and it is the fate of most labours of this kind to be superseded here or there almost as soon as they have seen the light. We hope that Mr. Paton will not find it necessary to revise his Sinaïc work very largely when *The Inscriptions of Sinai* has appeared. The texts there given comprise among others those of the Palermo Stone, the Inscription of Un, those of Khnumhotep at Peri Hasan, and of Sebek-khu from Abydos, the papyrus of Simha, and some of the Hyksos period, including the various appearances of the name of king Khyau from Knossos to Bagdad.

Mr. Paton modestly disclaims the credit of any new renderings in his translations, having been content to choose among translators, and to hold fast to what seems to him best. He gives differing translations when he cannot decide between them, and *variae lectio[n]es*. His references are very full, and as they are designedly so, giving unimportant old editions, translations, and general references as well as important and very modern ones, in fact every case (so it seems to be intended) in which an inscription has been discussed or mentioned at all, the critic must note that, whereas his citations

from the archaeological journals are always complete and up-to-date, his mention of books is not always so. This is no doubt due to a deficiency of some of the most recent European books in the libraries in which he has worked. It is however scarcely fair to quote regularly the 1900 edition of Murray's *Guide to Egypt* as if it were the latest in existence, when the largely re-written edition of 1907 has been available for eight years past.

The absence of mistakes in the typescript is really remarkable. We only note "Khnumhotep" for Khnumhotep, which occurs fairly often. In his transliteration Mr. Paton uses the Greek X for kh; e.g. Khnumhotep appears as *Xnum-htp*. This seems unnecessary. The Greek X is always liable to be confused by beginners and the unlearned with the Latin X. Its use gives an odd Mexican appearance to words; and it is inadvisable to confuse two totally distinct scripts in the same word: all mixed scripts are to be deprecated. If we do not like to use kh, M as representing by two letters a single Egyptian sign, we have the usual *ȝ, ȝ, H, ȝ*, which are preferable to X and x.

H. R. HALL.

*The Architecture of Ancient Egypt. An Historical Outline* by EDWARD BELL, M.A., F.S.A. London. G. Bell and Sons, Ltd. 1915. Price 6s. net.

This little book is intended to meet a much felt want and will be welcomed alike by the general reader, the intelligent traveller and the architectural student.

Its main object is to give, in a concise form, a connected historical outline of Egyptian Architecture. It brings together, within a comparatively small compass, the principal results of recent research which are scattered about in numerous periodicals and in books dealing more or less exhaustively with special branches of the subject. It has been the endeavour of the author to extract from these various sources the information essential to his object, and to arrange the same in historical sequence and in such a form as to make it easily comprehensible to those who wish to gain a general knowledge of the subject without going too deeply into details.

Mr. Bell seems to have accomplished his task with much care and discrimination and with painstaking zeal, and the result, which has evidently only been arrived at after a large amount of patient research, should not fail to satisfy the needs of those for whom he set out to cater.

The reader is taken over the whole range of the subject from the pre-historic era down to Ptolemaic times and each phase is dealt with on a scale commensurate with its importance in the general history of the art.

In the first chapter, Mr. Bell refers to primitive building and to the importance of material in helping to form types. He then alludes to the lights thrown on the early civilization by the study of ceramics and of primitive cemeteries. A short chapter is devoted to the religion of Egypt, and reference is made to the help afforded by the study of sepulchral and religious monuments. Chapters follow on the early tombs, with concise and clear descriptions of the principal mastabas and pyramids; on the monuments of the Old Kingdom, the Middle Kingdom and the New Empire, and, in the latter, the subject of domestic life and art is gone into in some detail. Further chapters deal with the great examples, grouped together under the names of their various sites: Der-el-Bahri, Karnak, Thebes, Abydos, etc. Other chapters follow on the rock-hewn tombs and the later Dynasties, concluding with that of the Ptolemies.

In a summary the author remarks that "though in the foregoing sketch of the art of architecture in Egypt some changes in ideals and methods have been recorded it still remains a remarkable circumstance, striking even a superficial observer, that it shows as a whole so little tendency to develop; and that having attained, at what we regard as an early period of its history, so high a degree of technical excellence, it should have made in the course of three or four thousand years so little actual progress, failing even to obtain in its own peculiar path any definite period of culminati-

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religion. Even under the Greek Ptolemies classical art seems to have had only a superficial effect. The architecture of the Egyptian Empire remained exotic to the end, and however astonishing and impressive it may be to the uncritical observer, however interesting and significant to the student of the race, it became after its early days an anomaly in the general history of the art, compelling the inquirer to look elsewhere for a further evolution."

Three Appendices are attached, the first being an English version of a hitherto untranslated paper by Lepsius embodying the results of his researches in Egypt in the year 1842. A second deals with the supposed Osirion at Abydos, and a third with Egyptian Obelisks.

The volume is very fully illustrated by diagrams, plans and photographs, culled from various sources, and a key-plan of ancient Egypt and Nubia is attached at the end.

ROBERT SCHULTZ WICK.

*A General Guide to the Collections in the Manchester Museum*, with preface by W. M. TATTERSALL.  
Manchester: University Press: Longmans, Green, and Co. 1915. 3d. nett.

Mr W. M. Tattersall, the Keeper of the Manchester Museum, has edited a very useful little guide to the treasures of his *Ajaib-khana*; the "Wonder House" which redeems the ugliness of the Oxford Road. To enter the University building, which Manchester cabmen still refuse to know by any other name than "Owens College," and to pass into its splendid Museum, from the Oxford Road, is almost as if one were to escape suddenly from Whitechapel into the Ashmolean: the new galleries, called after the Museum's great benefactor and an old and tried friend of Egyptology, Mr Jesse Haworth, in which the Egyptological collection finds its home, by no means suffer in comparison with those of Oxford. And their arrangement is equally good and instructive. One learns in both, and gladly. A new collection, especially one which, like that at Manchester, owes its treasures almost entirely to scientific excavations, can easily be arranged in such a manner as to be most useful for teaching purposes.

The objects at Manchester are all without exception arranged chronologically, and for a study of the development of Egyptian pottery we can cordially recommend a visit to this Museum; its chronological series of types is remarkably complete. Works of outstanding artistic merit are naturally not conspicuous, but the XIIth Dynasty *shabti*-work found by Prof. Petrie at Rikka is of great interest, and readers of the *Journal of Egyptian Archaeology* will remember the little wooden statuette of a masked snake-charmer, or a dancer, also found by Prof. Petrie, which was illustrated in those pages in July 1914 (Vol. 1, pl. XXXIV, Fig. 2): the case containing the entire contents of the "Tomb of Two Brothers," a very fine burial of the Middle Kingdom from Bifeh near Asyut, is worthy to be *signalé*, as the French say. There are also some fine antiquities of the reign of Akhenaten and of the Archaic Period, and Dr Alan Gardiner has lent some splendid facsimiles of Theban wall-paintings. Altogether the Museum is indeed well-provided, and its arrangement reflects great credit on its curator, Miss W. M. Crompton.

Mr Tattersall's guide can naturally only devote a portion of its space to the Egyptian collection, but fully emphasizes its importance. One or two photographs illustrate some of the antiquities, and the little book is an excellent one for its remarkably low price.

H. R. HALL.

*Handbook of the Cesnola Collection of Antiquities from Cyprus*. By JOHN L. MYERS. New York: The Metropolitan Museum of Art, 1914. pp. lvi + 306, with plan and illustrations.

The geographical position of Cyprus, almost within sight of the coasts of Syria and Asia Minor, and within easy access of Egypt, Rhodes, Crete and the Aegean, has given it a unique position in the history of ancient culture. While it was rarely free for any long period from external influence from one quarter or another, its comparative isolation saved it from experiencing the full effects of racial and political changes which arrested from time to time the development of the great continental areas and of the islands in the more immediate neighbourhood of Greece. From the political standpoint Cyprus may be regarded as an outpost either of the East or of the West, and as she oscillated from

the one position to the other her native culture, after a period of direct importation, gave a tardy reflexion of that imposed by the more powerful neighbour within whose influence she had for a time fallen. Consequently changes, when they did come, were often sudden, in the earlier as in the later periods. The appearance of hand-made pottery in the early Bronze Age was not the result of any gradual process, and its close resemblance to the red-polished pottery of predynastic Egypt suggests that the art was introduced in an advanced stage of development from the mainland. At the other end of the scale we find that the introduction of Christianity was equally sudden, and it is to the wholesale desecration of her local sanctuaries at that period that the archaeologist owes so much of his knowledge of their contents. Apart from her strategic value the importance of Cyprus in the ancient world was based mainly on her ample supplies of timber and copper; she showed no marked industrial or artistic originality, and although her productions never lost their individuality, the interest in their study lies mainly in what they received from outside and assimilated.

It was in the year 1866, some seven years before Schliemann's first campaign at Hisarlik, that Luigi Palma di Cesnola, a native of Turin, but at that time a Brigadier-General of the United States who had taken a distinguished part as a Cavalry Colonel in the Civil War, landed in Cyprus. He came to the island as American Consul, and from the moment he landed took a leading part in the fashionable pursuit of collecting local antiquities. "With Cesnola's opportunities," writes Professor Myres, "an archaeological genius had the chance to anticipate modern work by a generation; it was a pity—but no fault of Cesnola—that the United States Consul in Cyprus was not an archaeological genius." But he had all a soldier's energy and he threw it without reserve into his new hobby. He not only bought from the natives, but caused digging to be carried out on his behalf without his personal supervision; and such notes as he took were always imperfect and in some cases puzzling. It is characteristic of his work that the site of the famous "Treasure of Curium," in spite of his plan and description, has remained a mystery to this day, and the treasure itself may represent a rich collection of tomb-jewelry that was never brought together in any one spot in antiquity. Professor Myres tells the story of the dispersal of his earlier finds among European museums, and of how his later and more important collection was acquired by the Metropolitan Museum of Art, in which Cesnola himself was appointed successively to the posts of Secretary and Director. He also summarizes the subsequent controversies which took place and the doubts which were cast in certain quarters on the authenticity of much of the collection. These were due in part to the unfamiliar character of some branches of Cypriote art, particularly its sculpture and vase-painting; in part to over-restoration and stone-washing (both now put right); but still more to the imperfect and unsatisfactory notes on *provenance* which Cesnola himself published.

But, as Professor Myres remarks, "in archaeology, as in business, we have to 'cut our losses' and make the best use of the knowledge we have"; and the authorities of the Metropolitan Museum could not have selected anyone more fitted by special knowledge and experience to liquidate their liabilities. The three volumes of the *Atlas of the Cesnola Collection*, published between the years 1884 and 1903, had already supplied the student with photographic or coloured plates of many of the more important objects. But a systematic and scientific study of the collection was still a pressing necessity; and Professor Myres has now repeated for it the service he rendered sixteen years ago for the rich collection of the Cyprus Museum. In the earlier Catalogue he had the advantage of working on material, a considerable proportion of which had been secured through excavations carried out under his own supervision. He was consequently enabled, in the study he then published of Cypriote pottery and other antiquities, to suggest a classification of fabrics which has been adopted in the main by other museums. The issue of the present volume has given him the opportunity of restating his conclusions on the development of Cypriote art in all its branches, in the light of more recent discoveries over the whole of the Aegean area and the Near East. In essentials his earlier system remains unaltered, and it is only in details that some shifting of date or regrouping of types has been necessitated.

It will be gathered that, in spite of its title, the book is far more than a museum handbook or guide to the Cesnola Collection. It forms in itself an exhaustive introduction to the study of the ancient arts and industries which the collection serves to illustrate; and the fact that it is not a complete catalogue of the collection makes it all the more suitable for that purpose. For many of the less interesting objects are here treated summarily in groups, and no attempt has been

made to incorporate the large number of duplicates and supplementary examples of well known type, which are not exhibited to the public, and form a "students' series" held in reserve. To have included these would not only have swelled the size of the book beyond the limits of a single volume, but would have directly detracted from its usefulness on the practical side. Thanks to its numerous illustrations its employment is not necessarily restricted within the walls of the Metropolitan Museum. Quite apart from its purely scientific use as a canon or standard for the classification and dating of Cypriote antiquities, it would be admirably fitted for adoption as a handbook in a university course on archaeology. If we strike a balance when estimating the foreign influences on Cypriote culture we should certainly find that those of the West preponderated; but oriental and Egyptian influences were so strong at certain periods that they left a permanent impress on the island art. Cyprus thus serves us a neutral meeting-place for the study, side by side, of several separate branches of archaeology.

Another feature of the book is, if we may so style it, the author's anthropological method of treatment. In so many archaeological works the pot, or even the shard, seems to be the end and aim of study. Professor Myres yields to no-one in detail and minuteness of classification, but he is always getting at the man behind the pot. He reconstructs from the imperishable clay the objects of basketry, wood-work, metal-work and the like which have perished, and this process in turn throws light on the pottery itself. The identification of the white slip ware of the late Bronze Age, for example (one of the few exported fabrics of native origin and manufacture found in Egypt and elsewhere), as wholly derived from leather-work, explains the odd bands of decoration as conventionalized stitches and facing at seam or rib. The introductory sections to the Collection of Sculpture are also worthy of close study, with their account of Cypriote sanctuaries, and the factors which determined the types of votive work. Among the most interesting of the votaries are those figured on p. 156 wearing a remarkable piece of native dress. It is a close-fitting belt looking, as Prof. Myres suggests, exactly like bathing-drawers, its rich ornamentation of embroidery or *appliqué* work suggesting further the garment worn by modern acrobats, an effect increased by the skin-tight vest. There can be no doubt, as Prof. Myres points out, that this is a later development of the folded loin-cloth such as was the primitive costume of the inhabitants of Crete and other Mediterranean lands in the Bronze Age. But it was only in Cyprus, where that age was for so long undisturbed, that the loin-cloth passed into a hand-sewn garment which by the seventh century had acquired solely a ritual or festal character.

We have left ourselves no space to refer in detail to the sarcophagi, terra-cottas and smaller objects. With regard to the engraved bronze bowls, found scattered so far apart as Nimrud and Pyrenæa, we note that Professor Myres throws out the suggestion that there may have been several schools of manufacture, including one in Cyprus. The sections on the inscriptions and the cylinders and seal-stones are also interesting, though the reference to "Iva-Vui" and the rendering of the owners' names on pp. 130 and 555 f., have clearly crept in without revision from some earlier work. Sealings in Paris and Constantinople, published by Henry, certainly suggest that the Narim-Sin cylinder (No. 4300), though early, is not contemporary work, and other examples are known of the long survival of a royal cult. One word must be added on the very effective binding of the book. The principal element in the design is derived from a late cinochōe of the Early Iron Age, after the art of Assyria and that of Late Egypt had inspired the Cypriote potter to produce what were his most effective and original designs. We may perhaps see significance in the fact that the decoration in the smaller panels on the cover is taken, not from any native work, but from a "Dipylon" cinochōe and open bowl which, though undoubtedly found in Cyprus, were traded to the island from the West.

L. W. KING.

*A History of Babylon, from the foundation of the Monarchy till the Persian Conquest.* By L. W. KING, LL.D., F.S.A. London, Chatto and Windus, 1915. Pp. xx+340; with map and illustrations.

Professor King's stately volume is the second of his trilogy on the history of Ancient Mesopotamia. Five years ago the first of his three books, the "History of Sumer and Akkad," appeared, and we

were taught by it to look forward with anticipation to its successors. Nor are we disappointed. The "History of Babylon" is a worthy successor to the "History of Sumer and Akkad." When we have the "History of Assyria" we shall have not only three of the finest-looking, but the three of the very best books on this subject that can stand on our shelves.

Professor King is a critical historian. He sifts his evidence and gives his conclusions, not overburdening us with detailed evidence for them, but telling us just so much as is necessary to show us that he has good and sufficient reasons for the faith that is in him. German histories are all evidence and no conclusions; French histories all conclusions and no evidence; Professor King's is that happy middle-thing between the two that is characteristically English. It is a good specimen of our way of writing history.

As he himself says, great difficulties arise for the plan of writing the histories of Babylon and of Assyria in two separate volumes. The stories of the two kindred Mesopotamian nations are so inextricably bound up together that it is difficult to tell them separately without overlapping and repetition. Professor King has, however, we think, succeeded very well in solving this problem. In this volume the reader will find the story which he began in the "History of Sumer and Akkad" carried on from the time of Hammurabi's unification of the southern Mesopotamian states in the kingdom of Babylon to its end at the Persian Conquest. The story is treated from the Babylonian point of view, and the foreign complications due to the attacks and the conquests of Babylon's Assyrian neighbours are left for consideration to the Assyrian volume. In this book the peaceful peculiarities of the Babylonians, their laws, their books, and their commerce, their temple and city-building, their astrology and their astronomy, dominate our interest, as in the third volume of the trilogy we shall find that wars and empires fill the scene, and that we shall hear little of reasonableness except under Esarhaddon or of book-learning except under Ashurbanipal.

The book begins appropriately with an account of Babylon itself, the mighty city, of whose remains we now know so much since the work there of Professor Koldewey and his assistants. Splendid streets and mighty temples, wide processional ways and gorgeously enamelled gateways, Babylon the Great has been found again, and Professor King gives us a detailed account of what she looks like, freely illustrated by photographs, plans, and drawings. Then we pass on to actual history. Chapter III contains important new conclusions with regard to the early chronology and regal succession of Babylon, which compel us to revise very considerably our ideas on the subject. The date of the famous Hammurabi, for instance, has so to be put back nearly a century and a half earlier than the date which Professor King previously considered probable. A special chapter is devoted to the period of this great king and lawgiver, whose place in history Professor King has already done so much to make clear. The long and obscure period of the Kassite kings receives fuller elucidation at his hands, but too long discussion of disputed points of detail is avoided, and the broad lines of the history are successfully preserved throughout.

We hear, meanwhile, much of the extraordinarily developed state and legal "constitution" of the Babylonians, which, with its precedents and principles, its causes and cases cited, was as elaborate, almost, as our own, and in comparison with which the Egyptian arrangements that existed must have seemed a disorganized chaos. The Babylonian, however, was a very particular person. Immemorial disputes as to land-boundaries and irrigation-canals, and a most ancient devotion to small trading, had induced in the nation a mathematical and meticulous type of mind that tended naturally to litigation and lawyer-like chesse-paring. To this characteristic we owe the devotion of the Babylonians to astronomy. Accurate observation of the heavenly bodies was as natural a feature of their civilization as accurate observation of landmarks and points. Stars, boundary-stones, and *mebas* had all to be got just right. But I do not suppose that the Egyptians ever really troubled to get their observation of the heliacal rising of Sirius more than somewhere near right; or, so far as the fellahin were concerned, were given to settle boundary-disputes by any process more scientific than the argument of the shillelagh. If the *sabir* did not settle the matter, the *turbash* applied to all the disputants indiscriminately would certainly have the desired effect. And yet the Egyptians could build the Great Pyramid. True; but are not also most of their temples placed upon such Jerry-built foundations that if Egypt were a land of earthquakes they would all have been level with the ground within a few years of their building? The Egyptians were a people of contradictions, as inaccurate people usually are; the Babylonians monotonously well-regulated in mind. Yet, monotonously regular as was their culture, the interest of

what they did and what they thought is tremendous; and their minds have influenced ours from the days of Hammurabi, through the minds of the Arabs to those of Galileo and Newton, far more than have those of their Egyptian peers.

Professor King's history touches Egypt but incidentally, first in the reigns of Amenshabep III and Akhenaten, at the time of the famous correspondence of the Pharaohs with the Kings of Babylon, Assyria, and the Hittites which the tablets of Tell-el-Amarna and Boghaz Kyi<sup>l</sup> have revealed to us. Tell is taken of the monuments of Egypt to show us the majestic portrait in the British Museum of Amenshabep the Magnificent, and the lifelike pictures from Tell-el-Amarna of his heretical son; while of Burnaburiash their Babylonian correspondent we know no more than his name and his words. Egypt too shows us what the bark was like in which Khonsu in Thebes, the Plan-Maker, was carried in state to the far land of the Hittites, where he cured the princess who was possessed of a devil. Here we are straying from Babylon, but Babylon in these days was a great power on her own account, and had constant direct relations both in war and peace with the Hittites of Anatolia.

When we come to the days of Assyrian domination, the history must needs contract within itself. The interest of the time is mainly Assyrian, and so its story will expand in the third volume. The book ends with a most interesting summing-up of Babylonian culture and its influence on the ancient world, which must be read with attention. Specially to the point is Professor King's destructive criticism of the strange theories that were gaining currency lately on the subject of the "astral myths" of the Babylonians, theories that were trying to turn not only mythology, but then legend, and finally history itself into a mere series of Babylonian star-gazers' dreams. When we find Jewish tradition regarded as astral myth, the caves of Adullam and Machpelah as editions of the Babylonian underworld, the departure of Moses out of Egypt as simply another form of the story of the victory of Bel over the Dragon (Pharaoh), and Joshua's passage of the Jordan as another way of treasuring the cleaving in half of the Dragon, we begin to smile. But when we find the *Odyssay* regarded as much the same sort of thing, we laugh, for we recognise an old friend. It is the Sun-myth *rediculus*. There is nothing original about it. Still, when one remembers that since the days of the Sun-Heroes and Dawn-Maidens of the seventies the science of archaeology has arisen, and realizes that the "Astralmythen" theory is conceived without the slightest reference to, or, indeed, apparent knowledge of, archaeology, one ceases to laugh, and is inclined to be indignant at such stuff being written and printed. That way absurdity lies. And if anybody thinks these remarks severe, let him read Professor King's account (which I can promise him is absolutely restrained in tone and all the more effective for that, no doubt) of this latest oddity of a clique of queer writers in Germany.

The late Professor Winckler's *Mugri* theory, now dead and buried, was simply a man's nest. It was an erroneous theory based on supposed evidence that will not hold water. But it was a *broad side* historical theory. This "Astralmythen" theory is mere moonshine. Let us apply it to German history. Are the captivity of Richard Lionheart in the castle of Durrenstein and that of king Enzio at Bologna mere versions of the visit of the god Tannus to the infernal regions? Surely Dr Jeremias, the author of much of this theory, must think so, especially in the case of Enzio. He was young and beautiful, the pride of the Hohenstaufen, and, above all, he was beloved of a noble lady of Bologna (Ishtar, obviously). And the lock of long fair hair that betrayed him when it fell out of the basket in which he was being smuggled out of Bologna: that, obviously, is a sunbeam. And so on. What would Dr Jeremias say is the astral origin of the myth of Canossa,—or that of Jana, both names interesting to Germans? Were the Pope and Napoleon both Bel, the Hohenstaufen and the Hohenzollern both representatives of the Dragon? As Professor King says, a Dutch scholar, Dr Kuypers, has shown that the figure of Louis XI of France can be made out to be the centre of dozens of solar and astral myths, if one likes to play the game of "Astralmythen."

The fact is that when German work in these subjects is good, it is usually very good indeed; but it can often be perfectly silly.

Professor King points out that interested though the Babylonians were in astronomy, and accurate in their observations, astrological and astral ideas did not dominate their religion and life to anything like so great an extent as has usually been supposed, which makes us the less inclined to accept the idea that all Babylonian myths were of stellar origin. And finally he shows that the supposed astronomical bases of the view that the Babylonians divided the history of the world into "astral"

ages" are all wrong, as Dr Kuyper has maintained. Professor Winckler, who started this part of the theory, was entirely out in his calculations.

So the book ends, in Chapter X, "Greece, Palestine, and Babylon, an Estimate of Cultural Influence," with a very interesting and instructive piece of criticism. The index is very full. The book is finely printed; the title-page being a model of dignity and proportion. And the binding is, like that of its predecessor, unusually effective. We congratulate Professor King on the completion of two-thirds of his work, and Messrs Chatto and Windus upon their worthy production of it.

H. R. HALL.

*Legal and Administrative Documents from Nippur chiefly from the Dynasties of Isin and Larsa.* By EDWARD CHIERA, Ph.D., Harrison Research Fellow in Semitics. (University of Pennsylvania: The University Museum. Publications of the Babylonian Section. Vol. viii, No. 1. Philadelphia, 1914.)

This further volume in the Babylonian series published by the University of Pennsylvania will provide Assyriologists with much additional material for the study of the law, administration and economic condition of Babylonia under the later kings of the Dynasty of Isin and their contemporaries in Larsa. The general reader will find of great interest Mr Chiéra's discussion of the vexed question of Rim-Sin's capture of Nisir, a point of first-rate importance for the determination not only of the actual course of events during the reign of Hammurabi and his successor Sammu-Iluna but of the whole chronology of the First Babylonian Dynasty. The most recent and authoritative treatment of the many difficulties of the chronology of this period is that of Professor King who in his 'History of Babylon' has discussed the whole subject in the light of the additional information published by Poebel, Clay and Chiéra. From that point of view as well as for other reasons Mr Chiéra's present work is of great value and deserves the attention of all who are interested in the history of the Near East.

*Sumerian Business and Administrative Documents from the earliest times to the Dynasty of Agade.* By GEORGE A. BARTON. (University of Pennsylvania: The University Museum. Publications of the Babylonian Section. Vol. ix, No. 1. Philadelphia, 1915.)

It is a testimony to the energy of Dr Gordon, the present Director of the Pennsylvania Museum, that the series of Babylonian texts he inaugurated some four or five years ago should already have reached its ninth volume. This latest part deals with texts of the earliest period yet treated and is from the pen of Professor Barton.

The first text in the volume is of considerable interest. Had it been one of those recovered by the American expedition to Niffer, there would have been no possibility of doubt as to its genuineness; but the fact that it was purchased will perhaps lead to some hesitation in accepting it quite unconditionally, though it may certainly be accepted provisionally. The signs engraved upon it are extraordinarily pictographic, and Dr Barton has already discussed their interpretation in the *Orientalistische Literaturzeitung* some two years ago. Another interesting inscription is that of Enkhegal, an early king of Lagash; but the majority are early account-tablets and documents of an administrative character, all of which are here carefully edited with classified lists of proper names, etc. It is scarcely necessary to say that Professor Barton has produced a very scholarly volume.

*Roman Cursive Writing: A Dissertation presented to the Faculty of Princeton University in Candidacy for the Degree of Doctor of Philosophy.* By HENRY BABLETT VAN HOORN. Princeton University Press; London, Humphrey Milford. 1915. 8vo. Cloth \$2.00 nett.

The title of the above volume does not at first sight suggest much connexion with the subjects dealt with in this Journal; but it has a special interest and value at least to subscribers to the Graeco-Roman Branch, since it deals mainly with papyri, and a knowledge of the Latin cursive is

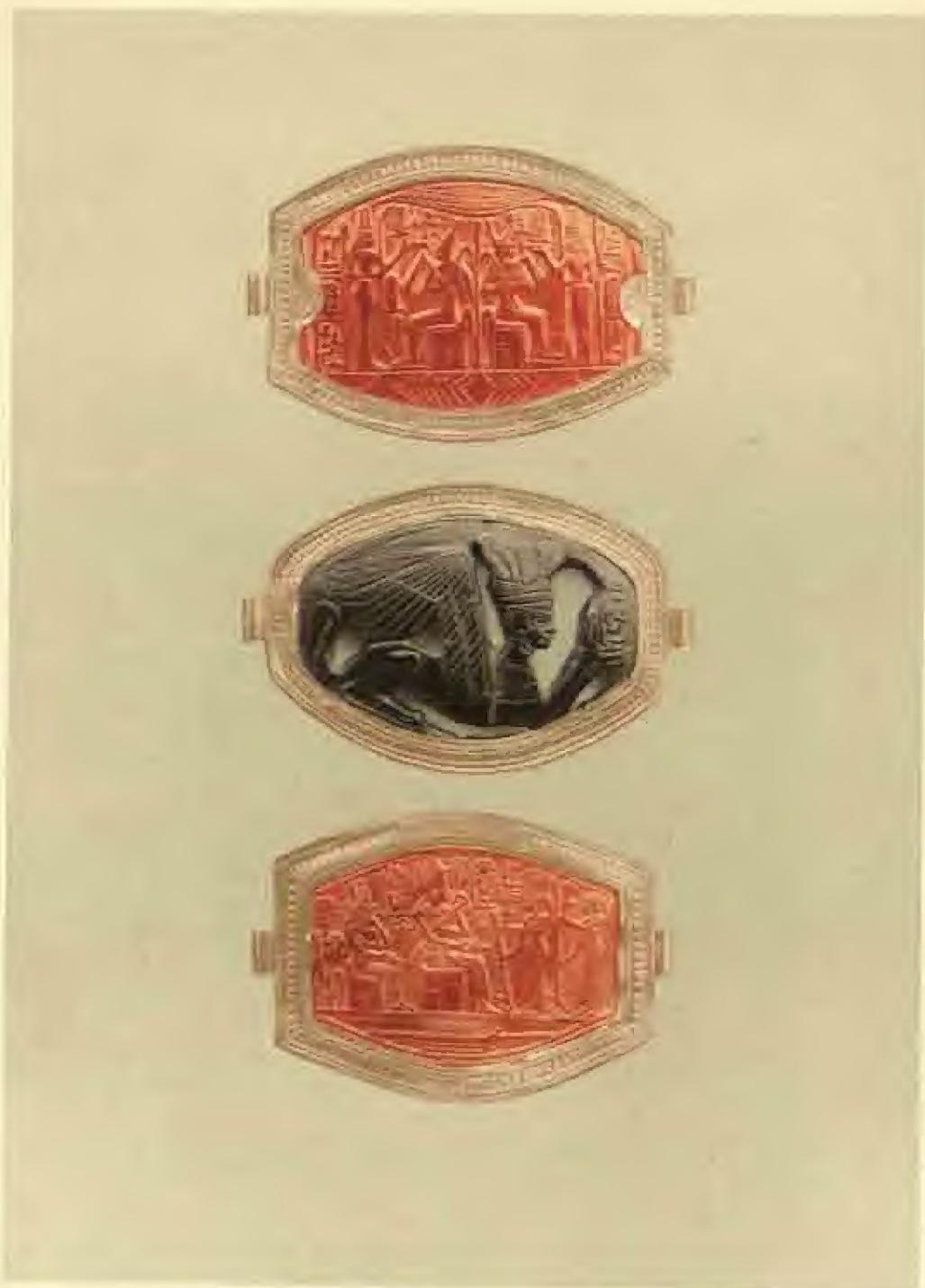
necessary to the papyrologist in view of the possibility of finds of Latin papyri. Moreover not a few of the documents here treated were first published in the volumes of the Fund.

The book is not, strictly speaking, a history of the Latin cursive but a collection of material for such a history, and in its completeness and range it stands alone in the literature of its subject. That subject is the Roman cursive from our earliest examples to the end of the seventh century; the author naturally excludes the "national hands" founded on the Roman cursive, even as regards the examples earlier than that date. After an introductory chapter dealing with the history of the subject, he proceeds in chapter 2 to an examination of the hands seen in graffiti, lead tablets and wax tablets; and then, in chapter 3, he gives a detailed palaeographical description of all the Latin papyri and ostraca known to him, arranged as far as possible in chronological order. In each case are given briefly the contents, dimensions, &c. of the document, its provenance if known, place of publication, and present whereabouts; and then follow, in alphabetical order, an account of the form or forms of each letter. In chapter 4 is given a history of each letter as illustrated by the foregoing examples; and at the end are useful appendices, one a list of papyri which, though written in Greek, contains Latin letters in subscriptions, the second a very full and carefully compiled bibliography, and the third a list of abbreviations in Latin papyri reprinted from the *Transactions* of the American Philological Association. The volume concludes with tables of the alphabets obtained from the various documents treated.

The volume shows immense care and thoroughness, the (one might say) pitiless thoroughness so characteristic of the best American scholarship, which leaves nothing to chance, quoting *verbis*, in the introductory chapter, remarks of all sorts of people on palaeographical questions, and extending to the insertion in full, even to the author's temporary address at Munich, of a letter from the Court Library at Vienna with reference to the Latin papyri in the Raimer collection. It will be invaluable to students not merely of Latin papyri but of the development of Latin cursive hands in general, and should be added to every palaeographical library which aims at completeness.

H. I. BELL.





PLAQUES IN THE COLLECTION OF THE EARL OF CARNARVON

## THREE ENGRAVED PLAQUES IN THE COLLECTION OF THE EARL OF CARNARVON

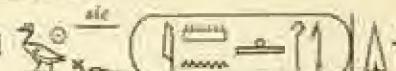
By the generosity of the Earl of Carnarvon we are able to present to the readers of the *Journal* coloured reproductions of three of the finest objects in his collection (Plate XI). These are slightly convex plaques, in two cases of carnelian and in the third of sard, very skilfully engraved in low relief with figures of Amenophis III and members of his family. Before describing in detail the plaques, which are reproduced full-size, we will here quote *verbatim* Lord Carnarvon's account of the manner in which they came into his possession. "In November 1912," he writes, "I received a telegram from Mr Carter asking me to send out a certain sum as he had bought for me some very interesting objects. The three plaques arrived in England about a month later in charge of a friend. Mr Carter had bought them in Luxor, by a happy chance just forestalling the Berlin Museum. Where they were found it is hard to say, but there are not many places whence they could have come. Personally, I think their provenance must be the Bibān el Mūlūk: the so-called tomb of Amenhotep and Tiy up the W. valley had been disturbed by the natives before Mr Theodore Davis began to dig there. These engraved stones must certainly have belonged to the king himself and were probably set in bracelets or armlets. When the tomb was robbed no doubt the gold settings were taken and the stones cast aside as too compromising."

The modern settings in which the plaques are at present mounted have been copied from the silver bracelets of Queen Tawosret, now in the Cairo Museum<sup>1</sup>. The carnelian plaque at the top of the plate (A) does not show the same wonderful finish as C, owing to its having been badly rubbed. It represents Amenophis III at the Sed-festival, in the culminating ceremony of which the king mounted the throne in the "Hall of the Heb-Sed" and was acclaimed first as King of Upper Egypt and then as King of Lower Egypt. The two halves of this final rite are here depicted in symmetrical fashion; and in each case Queen Tiy stands in front of the king and does him homage, holding in one hand the palm-shoot symbolizing a countless number of years; the other hand of the figure on the left presents the sign of life ♫, while that of

the figure on the right supports the cartouche  Δ ♫ "Nebmārē, granted life." Room is found for the Queen's name,  ♫ } "[Tiy], who lives"

<sup>1</sup> TH. DAVIS, *The Tomb of Siptah*, Pla. [9, 10].

only on the left. Two vertical lines of inscription form a suitable framing of the central figures: these read respectively  "The good god, lord of the

Two Lands, Nebmarē, granted life eternally" and  "Son of Re, of his [body], Amenophis-Ruler-of-Thebes, granted life eternally."

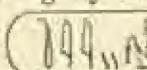
The hieroglyphic sign  for "festival" partly fills the vacant space below the dais, the steps leading up to which are also roughly indicated; above it is the winged solar disk, depicting the tutelary deity Horus Behdty. The plaque A differs from the other two by having a rectangular notch in the middle of each side, doubtless connected in some way with the setting in which it was formerly mounted; these notches are now hidden beneath the projecting lobes of the modern setting.

Plaque B is bolder in design and in some ways more effective than either A or C; it is made of brown sard of a deep rich colour, and is of pierced work, unlike the other two. Upon it is represented a human-headed sphinx with wings, in a recumbent

position and holding the cartouche  "Nebmarē of Amenophis III in its outstretched hands. There is some reason for thinking that this sphinx is meant to depict Queen Tiy; for on the famous double statue of Haremhab and Mutnozmet at Turin there is figured a very similar sphinx<sup>1</sup> with flowery head-dress, ear-rings and *menat*, with arms up-raised adoring the cartouche of Mutnozmet; this representation is on the side of the group nearer to the queen.

Plaque C is indisputably the finest of the three, excelling in its workmanship any carved piece of carnelian that has come down to us from Ancient Egypt. The delicacy of the modelling of the king's face is exquisite, and needs the use of a magnifying glass to be appreciated to the full. King Amenophis III,

 "The good god, lord of the Two Lands, Nebmarē, granted life," occupies the centre of the picture, seated upon a throne of which the back is formed by a vulture with outspread wings—a marvel of minute workmanship. He wears the *kheperesh*-helmet, and holds a crook in one hand and the sign of life in the other. The face, from the brow to the chin, barely measures three millimeters, and is notwithstanding as expressive a rendering of calm dignity and power as though it were ten times the size.

Behind the Pharaoh sits  "Tiy, who lives," his queen, wearing the vulture-headdress and the two feathers; she holds the fly-flap and the 'ankh. At her back is a high fan, held by an 'ankh-sign with hands; this, together with three other signs, forms the common prophylactic inscription  "stability and life behind her." The right-hand portion of the plaque is filled with figures of two princesses shaking sistra before the king; and stretching out to him palm-shoots representing years. To the upper portion of one of these adheres the sign of life; and both end in an almost microscopic tadpole  (symbol for 100,000) over the sign  (symbol for

<sup>1</sup> PAUSET D'AVENNES, *Histoire de l'Art*, Atlas, vol. II, Pl. [35]. Cf. too DARESSY, *Ostraca*, Pl. 18, no. 25090.

10,000,000). The head-dress of the foremost princess looks like a square mass of flowers or buds on long stalks, tied together near the top. A somewhat similar head-dress is worn by two royal concubines in the Theban tomb of Menna (no. 69), though there it is preceded by the two feathers. By a curious convention, which requires a careful comparative study that would here be out of place, the king on his throne is represented as placed upon the basket-sign , which itself in turn rests upon a sled such as was used for carrying the divine statues in the temples.

In conclusion, it is impossible to refrain from an allusion to the romantic interest of these bracelets or armbands. There cannot be much doubt but that they once rested upon the arms of no less a person than Queen Tiy, the mother of the celebrated Heretic King Akhenaten, and herself one of the most famous queens of Egypt.

## GREEK AND ROMAN TOURISTS IN EGYPT

BY J. GRAFTON MILNE, M.A.

A good deal of information has come down to us in various ways with regard to the ancient tourists in Egypt: besides the accounts of visits to the country written for the world generally by the visitors themselves or others, we have more intimate, if briefer, scraps of history preserved on papyri and ostraca, and, most plentiful of all, the names and remarks scratched on buildings or rocks. These in particular show so much in common with the modern tourist that it is interesting to examine them in some detail.

The habit of recording one's presence at a place by carving a name on the most convenient surface at hand was not of course introduced into Egypt by the Greeks. From the earliest times the Egyptians themselves had done the same; but it was not in the tourist spirit: in fact, it is hard to imagine the Egyptian as a tourist. The ancient Egyptian graffiti were mainly due to motives either of religion or of business. Some few of those of the Greeks in Egypt may be called religious: but the great majority of them are unconnected with any kind of worship.

The oldest Greek inscription found in the Nile Valley (unless some of the Naucratis vase-inscriptions are older) is of this latter class, although it was not written by men who were tourists in the ordinary sense. Early in the sixth century B.C. a party of Greek mercenary soldiers went up to Elephantine with Psammetichus II; they journeyed on to the Second Cataract, and at Abu-Simbel carved their names on the leg of one of the colossal statues in front of the rock-temple (*C. I. G.* iii, 5126). A few years later, the development of the Greek factory at Naucratis would help to bring Greeks into Egypt on more peaceful errands—some desiring to learn the "wisdom" of the Egyptians, if the stories of the visits of Solon and Pythagoras are true, others, such as Hecataeus, in the spirit of the traveller. But the first real tourist whose account of his tour in Egypt is preserved is Herodotus.

It was about the middle of the fifth century B.C. when Herodotus went to Egypt, the country being then under Persian rule. According to his own statement, he went up to Elephantine; and there is no sufficient reason for doubting his words. He was more concerned with the customs of the country than with the buildings: apart from his notes of conversations with priests at Thebes, there is very little direct evidence that he travelled further south than the Fayum: but possibly, as he clearly investigated the Delta fairly thoroughly, he had got his ethnological data almost complete before he reached the Thebaid, and hence did not need to refer in his

history to what he saw in the upper country. It is not likely that Herodotus would scratch his name on a temple-wall: anyhow, it has not been found, although there are Greek names of about the date of his visit inscribed in the temple of Seti at Abydos; but there is probably a record of his presence in Egypt on some vase fragments from Naucratis. It was a common practice for Greek visitors to that town to dedicate vases, inscribed with their names, to one or other of the Greek gods worshipped there: and large numbers of fragments so inscribed have been obtained from the mounds on the site. Two of these fragments (published in *J. H. S.* xxv, p. 116) bear the name of Herodotus: and, although the dedicatory cannot be identified certainly with the historian, yet, as the writing is such as would suit him in date and style, and he visited Naucratis, there is no inherent improbability in accepting these two signatures as his autographs.

Both before and after the time of Herodotus, Egypt was closed for periods to Greek visitors: the real chance for the tourist came with Alexander's conquest and the establishment of the Ptolemaic dynasty: and Greek graffiti become plentiful at several centres from the third century B.C. onwards. In the next century the Romans began to concern themselves in Egyptian affairs: the earliest dated record of a Roman tourist in Egypt is in a papyrus of 112 B.C. (described more fully below). And, as soon as Egypt became a Roman province, they came in numbers: Strabo shows in his account of the country what was the regular tour in the reign of Augustus: and in the next reign the prince Germanicus took this tour, for the purpose, as the historian states, of studying the antiquities (*Tac. Ann. II*, 59). A contemporary note of his visit is found in an ostracaon (Wilcken, *Chrestom.* I, 2, no. 413), dated 26th January, 19 A.D., relating to the collection of corn in preparation for his arrival at Thebes.

It was some time before Egypt saw another imperial tourist. Vespasian was in Alexandria immediately after his accession: but there is no record of his having gone up the country, and he was one of the least likely of men to take any interest in ancient remains. Titus is said by Suetonius (*Tit.* 5) to have attended the consecration of an Apis bull at Memphis, but we do not know if he travelled further. Hadrian, however, took the tour in style and with a large retinue: graffiti on the "Memnon" colossus at Thebes show that he visited it on 28th and 29th November 130, and an ostracaon (Wilcken, *Chrestom.* I, 2, no. 412) is concerned with the preparations being made at Thebes more than two months earlier against his coming.

Till the end of the second century tourists seem to have continued to visit Egypt, but after that time the records become rare. For considerable periods Upper Egypt at any rate was hardly safe from raids of the tribes dwelling further up the valley: and the generally disturbed condition of the Roman Empire would not encourage peaceful travel. The latest dateable graffiti of a Greek or Roman tourist is in one of the Tombs of the Kings at Thebes, which an Athenian, Nikagoras, visited in the reign of Constantine (*C. I. G.* III, 4770).

The normal itinerary of these tourists seems to have been very much that of the modern visitor. They started of course at Alexandria, where the show-buildings were of recent date, the chief ones being the Pharos and the Tomb of Alexander: according to Strabo, the older temples were deserted. But there was nothing much to detain the sight-seer, and doubtless he hurried through Alexandria as most of us do now. The voyage up the river was probably begun at Canopus as a rule: this was certainly

the case in the trip of Germanicus; and the reputation of the town, as a rather "fast" watering-place, with its Kursaal in the temple of Sarapis and an unceasing water carnival on the canal from Alexandria, may have tended to attract tourists. The first stop would be made at Heliopolis, to see the temple of Ra, which appears from Strabo's description to have been still in fairly good preservation in his time, though the town was empty of inhabitants, and the famous school where Plato had studied was represented by a few priests who attended to the temple-rites and showed visitors round: one, who professed to have inherited the ancient knowledge, proved to be a fraud. Thence the tourist proceeded to the Pyramids and Memphis: the latter, which was still a populous town in the Roman period, would be the headquarters from which the visit to the Pyramids was made, while in Memphis itself there were the temples of Ptah and Apis to be seen, and just outside, at Sakkara, the Serapeum. A few inscriptions written by visitors have been preserved on the paws of the Sphinx at Gizeh: and a more formal record (*C. I. G.* III, 4699) set up by the local inhabitants tells how the prefect Balbillus, in the reign of Nero, did homage to the Sphinx and was pleased with the Pyramids. Probably the ancient tourists scratched their names on the Pyramids as well: but these have vanished with the casing, though as lately as 1836 an inscription dated in the reign of Trajan was seen there by the traveller Boldensele (*C. I. L.* III, 21). The next point of interest was the Fayûm, where the Labyrinth and Pyramid of Hawara and the sacred crocodiles at Arsinoe are specially noted by Strabo: the same two sights were to be shown to the earliest recorded Roman tourist in Egypt, a senator by name Lucius Memmius, for whose reception the local officials of the Fayûm were directed to make ready guest-chambers and landing-stages and presents, and to take every care that he should be satisfied (*P. Tebt.* 33). Lake Moeris is also mentioned by Tacitus as one of the places visited by Germanicus (*Ann.* II, 61). Further south, the temple of Seti at Abydos is proved by numerous graffiti to have been an object of interest during several centuries: the earliest of these are of the fifth century B.C., and many are of Ptolemaic times, while some of the Roman ones may be as late as the third century A.D. (*C. I. Sem.* I, plates xvi, xvii: *P. S. B. A.* x, 377: Garstang, *El Arabah*, p. 37). But the chief goal of tourists in Upper Egypt then, as now, was Thebes: and there are two special points where their names are found recording their visits—the colossus of "Memnon" and the Tombs of the Kings. The former began to attract notice about the time of the Roman conquest, when it was observed that it emitted a musical sound when first struck by the rays of the rising sun: the phenomenon is mentioned by Strabo, who heard it, and Germanicus is also stated to have seen the statue: but the earliest dated graffito on it is one of three soldiers written in 65 A.D. The latest was inscribed by the prefect of Egypt in 196 A.D.: shortly after that time the broken statue was restored by the emperor Severus, but ceased to speak, and, consequently, to be visited. However, during the period of less than a century and a half when it was customary for distinguished visitors to have their names inscribed on Memnon's legs, he had collected a goodly array of such cards, including those of seven prefects of Egypt and many of the retinue of the emperor Hadrian, besides a quantity of verse of indifferent merit. The Tombs of the Kings, of which six seem to have been open (cf. *C. I. G.* III, 4796), had a more lasting popularity: the earliest graffito in them which bears a date is of the reign of Ptolemy II (*C. I. G.* III, 4789 a<sup>1</sup>), and they were still being visited six centuries

later in the time of Constantine (*C. I. G.* iii, 4770). Possibly some of the graffiti on the walls of the Upper Court of the temple at Deir-el-Bahri may have been scribbled by casual visitors, though the longer ones are clearly religious in their purport, written by those who had come in search of healing: but there is no definite evidence that this temple was one of the regular show-places for tourists at Thebes. The end of the ordinary tour was probably Syene, where the temples of Philae and the Cataract were seen: Strabo and Germanicus stopped at that point, and so apparently did a tourist named Nearchus about 100 A.D., one of whose letters has been preserved on a papyrus (*P. Lond.* 854): this is particularly interesting, since he mentions that the object of his journey was to see the works of men's hands, and that he had inscribed the names of his friends on the temple walls. Philae also is the last point where graffiti of the tourist class are found: the plentiful inscriptions of the Roman period in the temples of Nubia, especially those of Kertassi, Kalabshah, and Dakkeh, are entirely religious in their objects, and chiefly written by the soldiers stationed at those villages.

Though the itinerary of the tourist was practically the same in Roman times as now, there was some difference in the sights which were shown to him. The Egyptian priests apparently had no objection to making profit out of strangers by means of sacred things, in a way which Mohammedan opinion would not tolerate: there is no modern parallel in Egypt to the exhibition of the sacred crocodiles at Arsinoe described by Strabo: he tells how his party went to the temple lake with a cake, some meat, and a drink made with honey: the crocodile was lying on the bank, and one priest opened the animal's mouth, into which another thrust the food and poured the drink. The crocodile then swam across the lake: when another stranger came with similar offerings, the priests ran round and repeated the performance. That the crocodile so treated might be the very representative of the god appears from the earlier orders for the reception of L. Memmins (mentioned above), where directions are given that the regular tit-bits "for Potesouchos and the crocodiles" should be ready. Similarly at Memphis the sacred Apis was sometimes trotted out in a court "to be shown to strangers," according to Strabo. In comparison with these performances, the way in which the priests of Abydos exploited the visitor was much more dignified: it was evidently the proper thing to sleep in the temple of Seti and obtain dream-oracles, the priests doubtless supplying the interpretation for a suitable fee. Many of the names scratched on the walls are on the staircase at the back of the temple, about a foot above the steps, which suggests that this was the place where the seekers of dreams had to sleep, and wrote their names to pass away the weary time in their singularly uncomfortable couch. Some Galatians recorded a little diversion which occurred on their visit: "they caught a fox hero" (*P. S. B. A.* x, 380). Probably the fox was trying to raid the food-bags of the Galatians, as a modern fox did with a party of archaeologists encamped in the Ramesseum, with disastrous results to himself.

Some, however, of the places visited by the ancient tourists were not associated with religion in their minds; they went to see the Pyramids, as we do now, just as marvels of construction: and the Tombs of the Kings were similarly quite a secular show. It is noticeable that, while the graffiti on the statue of Memnon record the presence of members of the imperial house and officials of the highest ranks, those in the Tombs are all of undistinguished people: apparently the journey into the bowels

of the earth did not tempt the noble Roman. The tourists who did go down, however, usually expressed their admiration in emphatic terms: one even says "Those who have not seen this place have never seen anything: blessed are they who visit this place" (*C. I. G.* III, 4821<sup>a</sup>). The sole exception to the chorus of praise is in the case of a certain Epiphanius, who was evidently bored: "I, Epiphanius, visited but admired nothing except the stone" (*C. I. G.* III, 4788<sup>b</sup>).

The morning gathering at Memnon's statue must have been a regular society function, somewhat resembling the turn-out to see the sun rise at some Alpine hotels. Some people repeated the visit: one Heliodorus heard Memnon speak no less than four times (*C. I. G.* III, 4750). And those who could wrote verses, or threw together tags of Homer, or got some one else to do it for them, and inscribed the results on the statue, so that Memnon's legs irresistibly recall the visitors' books that are to be found in many tourist resorts. The most prolific of the writers were ladies: Balbilla, who was in the retinue of the empress Sabina, seems to have contributed five sets of verses, and Trebulla composed three. They were possibly poetesses by profession, although they do not describe themselves as such, in the manner of some of the men—Asclepiodotus, "poet to the procurator," and Areius, "Homeric poet" of the Museum at Alexandria (*C. I. G.* III, 4747, 4748). Several of the inscriptions record the visits of family parties: the usual mention is of wife and children, though in one case a local official brought his sister with him; and sometimes the voice of Memnon awakened in the thoughts of hearers a wish that a relative or friend might hear him, and the wish was duly written on Memnon's legs.

The family party, however, was not peculiar to Thebes: it is found in earlier graffiti at the temple of Abydos. And no doubt there would be many instances then as now of a family doing the tour of Egypt, under conditions which, except for the railway and steamers, would be not very unlike those of to-day.

## THE RELIGION OF THE POOR IN ANCIENT EGYPT

BY BATTISCOMBE GUNN.

If any religion be regarded rather in its emotional than in its intellectual aspect, that is to say, more particularly as an outcome of man's hopes and fears for himself in regard to the Unknown than as a theory of the universal economy, the most essential consideration is undoubtedly the personal relation which its adherents feel to subsist between themselves and their god or gods. For in this, its most intimate depth, lies the real value of the religion as a comforter to men in their conflict with stronger powers within and without them, and as an enlargement of the life of the heart. Moreover, it will throw the strongest light on the moral qualities of its members, and the extent to which they feel themselves to be in harmony with their environment.

Now, the impression obtained by a general view of Egyptian religion in its classic and official documents is that this relation was, on the worshipper's side, one of extraordinary complacency and self-sufficiency. We may leave out of account the royal intercourse with the gods, since the king was considered to be one of these himself and the son of them, and therefore in the position of *ultimus inter pares*, to say the least. But if we turn to the remainder of the great mass of writings expressing religious or moral sentiment which have been preserved to us, whether the funerary inscriptions, or the sacred books, or manuscript copies of uncanonical hymns and prayers, we find almost everywhere the same feeling. The Egyptian, as reflected in these texts, was little disposed to humble himself before deity. A careful respect, with strict observance of the commerce of sacrifice and ceremony against accountant benefits, was at all times necessary to be maintained: but the attitude of the 'miserable sinner,' so characteristic of the Christian and other Semitic religions, is unknown to these writings. Consider the Declaration of Innocence<sup>1</sup>, in which every candidate for the joys of the next world proclaims his freedom from every human frailty; the self-identification with this or that god, so essential a feature of Egyptian magic; the nobles' many descriptions of themselves as miracles of human perfection in their dealings with men and gods, and their claim to consequent admiration from both. These people, one would say, never took God into their confidence, nor would permit themselves to plead guilty at any divine tribunal, or to sue for mercy. Whether this attitude arose from the intense spiritual and material pride (probably unequalled

<sup>1</sup> Usually called the 'Negative Confession,' a term which might well be abandoned as being, in so far as it means anything, misleading: it is no 'confession' to persist through forty-two clauses that one has committed no conceivable sin.

elsewhere in the world) of the Egyptian aristocracy, which would not suffer them to admit the least fault—the middle classes imitating their betters in this; or whether it was a consequence of the profound belief in the creative power of the spoken word, the solemnly uttered affirmation magically translating itself into a colourable reality; or whether again much of it was plain lying with intent to 'bluff' gods or posterity: is a problem more easily posed than solved<sup>1</sup>.

But a notable contrast to the tone of this, the main current of traditional Egyptian religious feeling, is afforded by a small and far less-known group of hymns and prayers, all of which fall within the limits of the century and a half occupied by the Nineteenth Dynasty (B.C. about 1350–1200), and which stand quite in a class by themselves. In these the change of orientation of the worshippers, the revolution in that personal relation to deity upon which I have laid stress, is truly remarkable. All the (in the popular sense of the word) Pharisaic complacency of the priestly and official texts, the boasting 'in which there is no boasting,' the facile formalities of veneration, cold descriptions of the qualities and energies of the gods, sanctioned by the use of ages, with which these works were so easily put together, are absent. In their place we find the very spirit of that self-abasing and sorrowful appeal, conscious of unworthiness, which Matthew Arnold, dealing with a similar contrast in its most eminent examples, called the Hebraic attitude as opposed to the Hellenic. Those who wrote these psalms (as we may fairly call some of them), or for whom they were written, were men conscious, as they confess, of their 'many sins'; who approach the gods not as creditors who have fulfilled their side of a contract and calmly await their recompense, but as 'humble men' and 'helpless ones,' hoping for mercy; who proclaim, not that they are perfect, unspotted even by contact with the erring, but 'ignorant' and 'foolish,' 'not knowing good from bad,' deserving of punishment but saved by the grace of a god who prefers the silent before the eloquent, the distressed before the mighty, who cannot be bargained with, is a surer help than man, whose wrath is soon past, and who sends no earnest suppliant empty away.

Several of these documents, so significant in the history of religion, are in manuscript (many at the British Museum); almost all the rest are a group of memorial stones which were found nearly a century since at Dér-el-Medineh, in the Theban Necropolis, where they were set up in small temples by the humble draughtsmen, scribes and 'attendants' of that part of the great cemetery. It is to these memorials that I invite the attention of my readers. Scattered long ago among the museums of Turin (where lie by far the greatest number), London and Berlin, many of them were published by M. Maspero many years ago: the same savant dealt afterwards with some of them in an essay on popular beliefs of the Egyptians. They have been touched upon in the standard manual of Egyptian religion, the author of which, Prof. Erman, not very long ago republished the essential part of the texts in corrected form, with translations and brief commentary<sup>2</sup>.

<sup>1</sup> In the case of the self-adulation put so often into the mouth of the deceased in tomb-inscriptions, it is possible that the composition of these is as a rule to be attributed not to their seeming authors but to the piety of surviving relatives, who would naturally, under the conventions of Egyptian style, cast them in the first rather than in the third person singular.

<sup>2</sup> ADOLF ERMAN, *Denksteine aus der thebanischen Gräberstadt* (Sitzungsberichte der königlich preussischen Akademie der Wissenschaften, 1911, XLIX, pp. 1086–1110). For MASPERO's previous

The main purpose of this article is to present this body of texts to English readers: my translation of the Egyptian naturally follows very closely that of Prof. Erman, except at a few points where I have ventured to differ from him<sup>1</sup>.

## I

The most interesting of these stones is a *stela* now in the Berlin Museum<sup>2</sup>, found in one of a group of small brick temples of Amún, which were doubtless built for the sole use of the workers on the Theban Necropolis, and from which, possibly, most of the other monuments of this group originally came. The *stela* is dedicated to Amún by the draughtsman Nebré and his son Kha'y in gratitude for the recovery from sickness of Nekhtamún, another son of Nebré.

At the top sits Amún enthroned before a high pylon, with the superscription:

*Amen-Ré, Lord of Karnak;*  
*The great God within Thebes;*  
*The august God who hears prayer;*  
*Who comes at the voice of the distressed humble one<sup>3</sup>;*  
*Who gives breath to him that is wretched.*

Before Amún, and in front of a small altar, kneels Nebré in adoration; over him is written:

*Giving praise to Amún, Lord of Karnak,*  
*Him that is within Thebes;*  
*Homage to Amún of the City, the great God,*  
*The Lord of this Sanctuary, great and fair;*  
*That he may let mine eyes see his beauty.*  
*For the Ka of the draughtsman of Amún,*  
*Nebré, justified.*

Below is the following text, at the end of which are depicted the four sons<sup>4</sup> of Nebré kneeling in worship:

*Praise-giving to Amún.*  
*I will make him hymns in his name.*  
*I will give him praise up to the height of heaven:*  
*And over the breadth of the earth.*  
*I will declare his might to him who fares down-stream:*  
*And to him who fares up-stream.*

publications see *Réveil de Thèbes...*, vol. II, pp. 109, 111, 112, 182, 197, vol. IV, pp. 135, 143; also MASPERO, *De Quelques Cultes et de Quelques Croyances populaires des Égyptiens*, § 3, *Le Dévise Mirifico et ses Oubrissons Miraculeneos*, in *Études de Mythologie et d'Archéologie*, vol. II, pp. 402 ff. See also ERMAN, *Handbook of Egyptian Religion*, pp. 78 ff. (English edition); BREASTED, *Development of Religion and Thought in Ancient Egypt*, pp. 349 ff. A list of the other texts considered by Erman to be cognate in character with those dealt with by him is given in *Danksteine...* (see above), p. 1108.

<sup>1</sup> I am indebted to Dr Alan H. Gardiner for several suggestions in connection with corrupt or otherwise difficult passages of the *stelas*. <sup>2</sup> No. 23077.

<sup>3</sup> Dr Gardiner suggests that the 'humble' (*smk*) may be the general name of the poorer population above the slave class, analogous to the Babylonian *mashkum*.

<sup>4</sup> The following members of Nebré's family are known from this and other monuments: Father, PAY; mother, unknown; brother, PRAS-ROTPE; wife, PESRED; sons, NEKHTAMÜN, KHA'Y, KHUAMÜN, AMENEMOPET.

*Be ye ware of him!  
Herald him to son and daughter:  
To the great and little.  
Declare ye him to generations and generations,  
To those that exist not yet.  
Declare him to the fishes in the stream:  
To the birds in the heaven.  
Herald him to him that knows him not and him that knows him:  
Be ye ware of him!*

*Thou art Amún, the Lord of him that is silent:  
Who comest at the voice of the humble man.  
I call upon thee when I am in distress:  
And thou comest that thou mayest save me;  
That thou mayest give breath to him that is wretched;  
That thou mayest save me that am in bondage.*

*Thou art Amán, Lord of Thebes,  
That savest even him who is in the Netherworld.  
For it is thou who art [merciful]  
If one call upon thee,  
And it is thou that comest from afar.*

*Made by the draughtsman of Amún in the Place-of-Truth, Nebre, justified,  
son of the draughtsman in the Place-of-Truth<sup>1</sup>, Pay, [justified,] in the name  
of his Lord Amún, Lord of Thebes, who comes at the voice of the humble one.*

*He made<sup>2</sup> hymns to his name,  
Because of the greatness of his power:  
He made<sup>3</sup> humble entreaties before him,  
In the presence of the whole land,  
For the draughtsman Nekhtamún<sup>4</sup>, justified,  
Who lay sick unto death,  
Who was (under) the might of Amún, through his sin.*

*I found that the Lord of the Gods came as the North-wind, sweet airs  
before him, that he might save the draughtsman of Amún, Nekhtamún,  
justified, son of the draughtsman of Amún in the Place-of-Truth, Nebre,  
justified, and born of the Lady Peshed, justified.*

<sup>1</sup> Reading *εινι* for *εινι*, here as elsewhere in this text.

<sup>2</sup> The *Df'et* (Old Coptic *τη*) or 'Duat'; so also on p. 40.

<sup>3</sup> 'Place-of-Truth' is apparently the name of a distinct part of the Theban Necropolis, not of the whole, as was formerly believed by Brugsch and others.

<sup>4</sup> Which verbal form is intended, is unrecognisable in the corrupt writing; but there is no doubt as to the general sense.

<sup>4</sup> Nebre's son.

*He<sup>1</sup> said:*

Though the servant was disposed to do evil,  
Yet is the Lord disposed to be merciful.  
The Lord of Thebes passes not a whole day wrath:  
His wrath is finished in a moment, and naught is left.  
The wind (?)<sup>2</sup> is turned again to us in mercy:  
Amun turns with his air.  
As thy Ka endureth, mayest thou be merciful!  
May that which has been turned away not be repeated!  
*Thus the draughtsman in the Place-of-Truth, Nebré, justified.*

*He said:*

I will make this memorial in thy name:  
And establish for thee this hymn in writing upon it.  
For thou didst save me the draughtsman Nekhtamún:  
—Thus said I, and thou didst hearken to me.

Now mark, I do that which I have said,  
Thou art a Lord to him that calls upon thee,  
Contented in truth, O Lord of Thebes!

*Dedicated by the draughtsman Nebré and his son the scribe Kha'y.*

The text explains itself, and needs no comment. What was the sin by which Nekhtamún incurred the wrath of the god, we are not told, nor what was the resultant malady from which he happily recovered; perhaps the latter was beyond the diagnostic powers of the sufferer and his friends.

As a literary composition Nebré's hymn has features of interest; the parallelism is good, and the construction of the second strophe, of which one half is the inversion of the other, is, Prof. Erman points out, without counterpart in Egyptian verse-forms.

## II.

To the same Nebré belong half-a-dozen other monuments now at Turin, Paris and London<sup>3</sup>, of which must be mentioned in passing, as a striking example of the popular cults of the Empire, the stone at Turin<sup>4</sup> in which Nebré is shown worshipping the beautiful dove which endures, endures evermore, while his sons Nekhtamún and Kha'y adore the beautiful cat which endures, endures. Only one of these, however, has an inscription of any importance to our present purpose, namely a stela in the British Museum<sup>5</sup>, dedicated by Nebré, son of Pay, to Haroëris, Lord of Heaven, Ruler of the Nine.

<sup>1</sup> Still Nebré.

<sup>2</sup> 'To be merciful'; 'mercy,' seem to be the best renderings of *hpt*; *hpt*, in these texts.

<sup>3</sup> *Whep* with the egg determinative. There is a rare late word which resembles this, and for which it may be intended, meaning 'wind.'

<sup>4</sup> Enumerated by ERMAN, *op. cit.*, p. 1696.

<sup>5</sup> No. 134; cf. *Recueil de Travaux*, n. 108.

<sup>6</sup> No. 276; cf. *Recueil de Travaux*, n. 162 for full description.

The text runs as follows:

*Giving praise to Haroëris,  
Homage to him that hears prayer,  
That he may let mine eyes behold my way to go.  
For the Ka of the draughtsman in the Place-of-Truth, Nébré, justified, son  
of the draughtsman Pay, justified.*

Whether the reference to sight is to be taken literally, as desiring a cure for blindness, or in the sense of a prayer for enlightenment, it does not seem easy to say. I incline to think that in this case the latter is more probable.

### III.

We come now to three stones dedicated to one of the strangest of Theban divinities, Dehuet-Amentet, 'the Peak of the West,' who was identified with Isis, but was more generally regarded as the home of the Necropolis serpent-goddess Meretseger. The Peak of the West is said by M. Maspero to be the spur of mountain which faces Luxor in the hill of Sheikh 'Abd-el-Gurneh<sup>1</sup>.

We will deal first with the Turin stela<sup>2</sup> of Neferabu, the best known of these monuments. Before an altar of offerings is the three-headed serpent-goddess, with the superscription:

*Meretseger, Lady of Heaven,  
Mistress of the two Lands, whose good name is Peak of the West.*

The following text accompanies the scene:

*Giving praise to the Peak of the West:  
Homage to her Ka.  
I give praise: hear my call.  
I was a just man upon earth.*

*Dedicated by the attendant in the Place-of-Truth, Neferabu, justified.*

*(I was) an ignorant man and foolish,  
Who knew neither good nor evil.  
I wrought the transgression against the Peak,  
And she chastised me.  
I was in her hand by night as by day:  
I sat like the woman in travail upon the bearing-stool.  
I called upon the wind, and it came to me not.  
I was tormented (?) by the Peak of the West, the Mighty One:  
And by every God and every Goddess.*

*Mark, I will say to great and little  
That are among the workmen:  
Be ye ware of the Peak!  
For that a lion is within the Peak.  
She smites with the smiting of a savage lion:  
She pursues him that transgresses against her.*

<sup>1</sup> *Études de Mythologie et d'Archéologie*, II, 403.

<sup>2</sup> No. 102. Published and translated by MASPERO, *Revue*, II, 109, *Études*, II, 406 ff.; translated by EBMAN, *Handbook of Egyptian Religion*, p. 78 (English edition).

*I called upon my Mistress:*  
*I found that she came to me with sweet airs;*  
*She was merciful to me,*  
*(After) she had made me behold her hand.*  
*She turned again to me in mercy:*  
*She caused me to forget the sickness that had been [upon] me.*  
*Lo, the Peak of the West is merciful,*  
*If one call upon her.*  
*Spoken by Nefert'nbu, justified, who says:*  
*Mark, and let every ear hearken,*  
*That lives upon earth:*  
*Bevare the Peak of the West!*

'The transgression against the Peak' seems to point to some well-known offence; but what it was we have no means of knowing.

Erman and Maspero both take the reference to the wind as probably indicating a disease in which the subject suffers from lack of breath. It may, however, be only a poetic figure.

#### IV.

The other two inscriptions to the Peak are both short. On a British Museum stela<sup>1</sup> the *Scribe of the Necropolis Nekhtamün* (not necessarily identical with either the subject of no. V or with the son of Nebré; the name is a very common one at this period) addresses *Meretseger, Mistress of the West*, as follows:

*Praised be thou in peace, O Lady of the West,*  
*The Mistress that turns herself toward mercy!*  
*Thou causest me to see darkness by day,*  
*I will declare thy might to all people(!).*  
*Be merciful to me in thy mercy!*

There can be little doubt that this man was blind. We shall meet again with the phrase 'darkness by day.'

#### V.

The Turin stela<sup>2</sup> of Nekhtamún, son of Didi, bears, according to Maspero, a representation of the Peak, which he describes as 'two slopes of a hill, depicted in accordance with the usual conventions of Egyptian draughtsmanship, running down from right and left and enclosing near the summit a sort of parallelogram, in which four coiled serpents forming a cornice stand out in relief.' Erman, however, mentions it only as 'a gorge.' A goddess with horns and disk stands on one of the slopes, and is celebrated as:

*Great Isis, Mother of a God;*  
*Lady of Heaven, Mistress of all the Gods;*  
*Lady of children, of many forms.*

<sup>1</sup> No. 374.

<sup>2</sup> No. 296; cf. *Recueil*, II, 112, and MASPERO, *Etudes*, II, 403.

And again as :

*The great Peak of the West,  
Who gives her hand to him that she loves,  
And gives protection to him that sets her in his heart.*

The difference between the formal epithets applied to the goddess as Isis, and the phrases used of her as the Peak, is striking.

#### VI.

In the first and third inscriptions given above it will be noticed that we are not informed as to the nature of the offences which called down upon Nekhtamun and Neferabu the wrath of the gods. The next two examples show that swearing falsely<sup>1</sup> by the name of a deity was thought to be a fruitful source of misfortune.

The same Neferabu who 'wrought the transgression against the Peak' dedicated a stone, now in the British Museum<sup>2</sup>, to Ptah. On one side of the stela he is depicted adoring the god in these terms :

*Praise-giving to Ptah, Lord of Truth, King of the two banks:  
Fair of face, who is on his great throne.  
The one God among the Nine  
Beloved as King of the Two Lands.  
May he give life, prosperity, and health,  
Keenness, favour and love.  
And that mine eyes may behold Amun every day  
As is done for a righteous man  
That sets Amun in his heart.*

*Thus the attendant in the Place-of-Truth, Neferabu, justified.*

The prayer is expressed in conventional phrases; but the petition that Ptah should enable him to look on Amun is curious: why did he not ask this boon directly of Amun himself? But 'to behold the Sun-god' is doubtless meant as a synonym of restoration of sight.

On the reverse side of the stela is the following inscription :

*Here begins the declaration of the might of Ptah, South-of-his-Wall, by the  
attendant in the Place-of-Truth, to the West of Thebes, Neferabu, justified,  
who says:*

*I am a man who swore falsely by Ptah, Lord of Truth;  
And he caused me to behold darkness by day.  
I will declare his might to him that knows him not, and to him that knows him:  
To little and great.  
Be ye ware of Ptah, Lord of Truth!*

<sup>1</sup> *M 'd*: The word 'd' has the general meaning of wrong-doing, and is frequently employed in opposition to *m 't*, 'truth, right action'; so that I cannot agree with Erman whom he translates this adverb as 'vainly, wantonly' (*fremhaft*). Perjury, not mere profanity, is evidently the crime in question.

<sup>2</sup> No. 589; cf. *Recueil*, vol. II, pp. 110 ff.

*Lo, he will not leave aside<sup>1</sup> the deed of any man.  
Refrain you from uttering the name of Ptah falsely:  
Lo, he that uttereth it falsely,  
Lo, he tumbles down.*

*He caused me to be as the dogs of the street,  
I being in his hand:  
He caused men and Gods to mark me,  
I being as a man that has wrought abomination against his Lord.  
Righteous was Ptah, Lord of Truth, toward me,  
When he chastised me.  
Be merciful to me; look upon me that thou mayest be merciful!*

*Thus the attendant in the Place-of-Truth to the west of Thebes, Nefer'abu, justified.*

Two expressions for blindness are used in these texts: 'to see darkness by day' (IV, VI), and 'to see a darkness of thy making' (VIII, XII, XIII). In the contexts in which they stand it is natural to take them as referring to physical blindness; but if this interpretation be correct it is very strange that this affliction should occur proportionately so often, and be at the same time the only one specified by the victims of divine retribution. Are we to infer that the decoration of the dark tomb-chambers of the Necropolis (for that was of course the work of the draughtsmen, sculptors, and perhaps of 'attendants' of the Place-of-Truth) was specially detrimental to the eyesight? or that blindness was believed to be almost always a direct punishment for impiety? Blindness has of course been at all times very common among the poorer classes of the Egyptian people.

## VII.

A stela at Turin<sup>2</sup> depicts in its upper part a barque bearing the moon's disk between the horns, with the superscription *Luna-Thoth, the Great God, the merciful*; and below the worshipper Hey carrying a portable shrine on his shoulder; and the following text:

*The servant of the Moon, Hey, he says:  
I am that man who uttered an oath falsely by the Moon concerning the....;  
And he caused me to see the greatness of his power before the whole land.  
I will declare thy might to the fishes in the river:  
To the birds in the heaven.  
They shall say to their children's children:  
Be ye ware of the Moon!  
O merciful one, that art able to turn this away!*

'This,' in the last line, is of course the affliction which Hey desires that the god will take from him.

<sup>1</sup> This phrase, *bq w'jbf sp*, is left untranslated by Erman; but Dr Gardiner points out that there are similar instances of the use of the verb *w'j* in the sense of 'overlook,' 'ignore,' as an extension of the primary meaning 'to lay down.'

<sup>2</sup> No. 284 (according to Maspero; the number '4' quoted by Erman is doubtless a misprint); cf. *Recueil*, vol. IV, p. 143.

<sup>3</sup> *sdjt* (formerly read '*ndjt*') with the wood determinative; it is impossible to suggest any meaning that would suit the context.

## VIII.

On another *stela*<sup>1</sup> at Turin the triple divinity Khonsu-Thoth-Horus is thus conjured :

*Take good cheer, O Lord of the Gods.....  
Be merciful, be merciful, thou fair one:  
Be merciful, do thou love mercy.*

*Thus the draughtsman of Amân, Pay, justified.*

Below this Pay's mother is shown upon her knees, and in front of her is this inscription :

*Praisegiving to Khonsu in Thebes, Neferhotpe:  
Horus, Lord of gladness.*

*I give him praise:  
I propitiate his Ka,  
That he be merciful to me every day.  
Lo, thou causest me to see a darkness of thy making,  
If thou be merciful to me I will declare it.  
How sweet is thy mercy, O Khonsu,  
To the helpless one of thy city!*

*For the Ka of the lady Wazet-ronpet, justified. Her son made this memorial  
in the name of his Lord Khonsu, the draughtsman Pay, justified, who said:*

*Turn thy face, do mercy:  
Hearken to me.....*

## IX.

The Turin *stela* no. 48 is the most difficult of all these texts, largely because of the errors of writing with which it is crowded.

The Priest of Amenôphis I, Nekhatûm, son (?) of Neferemhôtep, makes sacrifice to Amenôphis, whom he thus celebrates :

*Praisegiving to the Lord of the Two Lands,  
Amenôphis, to whom is given life,  
In (?) the temple 'Merymâ'et<sup>2</sup> of Menkheprure<sup>3</sup>,  
The good living God.  
He (Amenôphis) saves him that is (in) the Netherworld :  
He gives air to him that he loves.  
  
Whoso enters to thee, with troubled heart,  
He comes forth rejoicing and exulting.  
Great and (little) come to thee because of thy name,  
When it is heard that thy name is mighty.  
Whoso fills his heart with thee is glad:  
Woe to whomso attacks thee!*

<sup>1</sup> No. 330; cf. Recueil, vol. II, p. 116.

<sup>2</sup> This is the most likely meaning of the obscure phrase.

<sup>3</sup> Tuthmosis IV. The oldest of the group of small brick temples from which many of these *stelae* probably came was built under this king, and the cult of his ancestor may appropriately have found a place there.

*Ye shall contend (?) with a crocodile out of the land of Nubia (?) :  
And charm (?) a lion.  
Do I not stretch forth my hand to a hole,  
Wherein is a great serpent?  
Behold ye the authority of Amenophis, to whom life is given,  
When he works a miracle for his city!*

The first three lines of the last strophe are exceedingly obscure, and such translation as I offer is mainly conjecture. This is unfortunate as the purpose of the whole monument may be contained in the reference to the serpent in its lair. This may be interpreted in three ways, according as one understands the sense of the vague temporal form of the verb.—(a) As given above; this is Erman's translation, and makes of the *stela* a thank-offering for a special gift of immunity from snake-bite for which Nekhatum believes he has Amenophis to thank. If this is the right rendering it makes the inscription of particular interest, as containing one of the very few references to snake-charmers from Pharaonic times. (b) 'Did I not stretch.....,' in which case we have a thank-offering for a danger averted by the intercession of the God-King. (c) 'Shall I not stretch.....,' merely a figure by which is extolled the protective influence of Amenophis, potent in death for the welfare of the citizens of Thebes.

## X.

A Turin *stela* for Pay<sup>1</sup> represents him worshipping the solar barque, described as *The setting Sun, the Great God*, with the following short hymn :

*Giving praise to the Sun :  
Homage to Haroëris.  
I give thee praise when I see thy beauty.  
I hymn Rê when he sets ;  
O august, beloved, merciful God,  
Who hearest him that prays,  
Who hearest the entreaties of him that calls upon thee,  
Who comest at the voice of him that utters thy name !  
Thus the draughtsman Pay, justified.*

## XI.

A small wooden shrine at Turin<sup>2</sup>, perhaps made to contain a serpent, dedicated by the attendant in the Place-of-Truth, Kes, renewing life, for himself and several others, bears inscriptions of an entirely conventional character in honour of Khnum, Satis and

<sup>1</sup> No. 309; cf. *Recueil*, vol. iv, p. 125. Of the three persons named Pay—this one, the dedicator of no. VIII, and the father of Nebtû (no. 1)—it is impossible to say if any two or all three are the same man.

<sup>2</sup> No. 913; cf. *Recueil*, vol. II, p. 197. The *usas* is from Thebes, where Kes of Elephantine evidently dwelt, continuing the cult of the gods of his home.

Anukis of Elephantine. In a general address to this triad is however introduced, with an abrupt change of style, the following reference to the Theban god:

*Mine eyes behold Amun at his every feast,  
That beloved God, who hearkens to humble entreaties,  
Who stretches forth his hand to the humble,  
Who saves the wearied.*

## XII.

I give in conclusion two short inscriptions, similar in character to the preceding, which Erman has not included in his collection. On a Turin stela<sup>1</sup> Luna-Thoth in his boat is worshipped by a dog-headed ape, *Lord for all time*, and by the sculptor in the Place-of-Truth, *Neferronpet*, and his wife (or sister) and daughter:

*Giving praise to Luna-Thoth:  
Homage to the Merciful One.  
I give him praise to the height of heaven:  
  
I adore thy beauty.  
Be thou merciful to me,  
That I may see that thou art merciful:  
That I may observe thy might.  
Thou causest me to see a darkness of thy making;  
Lighten me, that I may see thee.  
For that health and life are in thine hand:  
One liveth by thy gift of them.*

## XIII.

On yet another Turin stela<sup>2</sup>, dedicated by the attendant in the Place-of-Truth, Onnofre, justified, Onnofre's wife Nebtinhet thus adores Thoth:

*Giving praise to Thoth;  
Homage to the Lord of [Hermopolis].  
What is this] that thou givest me, thou fair one?  
Be merciful; lo, great is (thy) power;  
Thou causest me to see a darkness of thy making.  
Be merciful to me that I may see thee.*

In these memorial and votive stones we find the manifestation of a religious emotion for which we shall look in vain at any earlier or later period in Egypt, until Christian times. It is not theological, it is unconscious of any break with orthodoxy or with the past; it goes out toward the great gods as well as to popular local divinities; but the whole personal attitude of the worshippers is radically different. To what causes this difference is due, is a question which it seems hardly possible to answer satisfactorily.

<sup>1</sup> No. 318; see *Recueil*, vol. II, p. 119.

<sup>2</sup> No. 279; see *Recueil*, vol. II, p. 119.

It is to be noted in the first place, that all the *stelæ* come from the same place, and that the persons who dedicated them all belong to the same class, and that a relatively humble one—the artizans and 'attendants' attached to a district of the vast Necropolis of Thebes. That this should be so is striking; but the existence of very similar sentiments in certain other manuscript prayers and hymns of the same period precludes any theory that the new outlook was peculiar to these cemetery workers, who might in that case, forming as they did a community apart, be thought to constitute a local religious school or sect.

It may be the right view that we have here the evidence of a popular religious development of the Empire period, noticeable occasionally in the general literature of the time, but especially appealing to the poor, who would see in the new ideas of a merciful and forgiving god a solace for their difficult existence. It need not militate seriously against this view that the development cannot be traced in, say, the Eighteenth Dynasty; apart from purely formal tomb and temple inscriptions, and copies of the traditional 'Book of the Dead,' the religious documents of that period which popular influences might be allowed to affect are by no means numerous. At the same time, the discovery of more material might show us the beginnings of what on this hypothesis is a new tendency.

For it cannot be maintained that the Doctrine of Ikhnaton is such a beginning. In the splendid El-Amarna hymn the features which constitute its originality are, firstly its exclusive monotheism, and secondly its wonder at the omnipotent and universal activity of the god, and the marvellous variety of his creation. Neither of these features is to be found in our texts. Moreover, the Doctrine was anything but a popular movement; it was the somewhat learned product of a court circle inspired by a royal enthusiast. It is little likely that the masses of the people absorbed any of its teachings during its initiator's lifetime, and its radical extirpation shortly after his death would give it no chance of permeating traditional beliefs. The Doctrine (in which God is brought into no closer relation with man than that of a provident creator and preserver) is not even a precursor of our texts; it is a vastly more salient but equally ephemeral manifestation of various obscure religious influences at work in the Empire period.

That some of these influences were foreign is not impossible. The Syrian immigrants who came or were brought to Egypt in such large numbers may have communicated to the people among whom they settled some of that consciousness of Divine mercy and human dependence thereon which is the character alike of Semitic religion and of our texts. A change of interior feeling rather than of external cult is just the form such an influence might take.

Alternatively, it may be thought that we see here the folk-faith, always existent undisturbed by official or philosophic changes and speculations, becoming temporarily articulate in favourable circumstances, and affecting somewhat the views of the more educated. The conditions of the time might well account for such a phenomenon. We find on the one hand a body of artizans taken from the lower ranks of the people, but rendered literate by the necessities of their occupation, with ample opportunities and

<sup>1</sup> For a discussion of the terms *lt m<sup>3</sup>t*, 'Place-of-Truth,' and *šdm-k*, 'attendant' with a list of persons bearing this title, see MASPERO in *Raméti*, vol. II, pp. 159 ff.

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material for making for themselves monuments such as would be beyond the reach of others of the same class; living together (in numbers previously unknown) in a separate community away from the rest of the population of the Capital<sup>1</sup>: on the other that wider expression of thought in writing which is one of the marks of a modern period; the loosening of many traditions; much desire for and sanction of novelty: what more natural than that these men should introduce upon the monuments which they made for themselves with their own hands conceptions current among the people from a remote past, but hitherto denied expression in writing? Assuming this to be the true solution of the problem, it is tempting to speculate on the extent to which the religion of Egypt might have been modified but for the rise to absolute spiritual and temporal power of a reactionary established church at the time of the later Ramessids.

Whatever theories one may devise, the fact remains that in these monuments we have remarkable and touching records of what was, for a time at all events, a religion of the poor in Ancient Egypt.

<sup>1</sup> For an account of the Necropolis workmen at this time, see ERMAS, *Life in Ancient Egypt* pp. 123 ff.

## THE DEFEAT OF THE HYKSOS BY KAMÖSE: THE CARNARVON TABLET, No. I

BY ALAN H. GARDINER, D.LITT.

No single inscription has been discovered in the course of the past ten years more important than the writing-board recording a defeat of the Hyksos by the Theban king Kamōse, which was found by Lord CARNARVON in 1908, and subsequently published in the fine memoir dealing with his excavations<sup>1</sup>. In that work good photographs of both *recto* and *verso* are given, and Mr F. Ll. GRIFFITH contributes a valuable description; but the former are on too small a scale, and the latter is too summary, to satisfy the requirements of the philologist and the historian. On the whole there seems in this case to be sufficient reason for departing from the custom of our *Journal*, which as a rule is concerned more with the results of Egyptological research than with the technical processes by which these are obtained. The palaeographical interest of the original is very great, and for this reason I have ventured to reproduce the large-scale photographs made for me in 1910 by Herr KOCH; scholars will thus have better means of controlling my readings, some of which are by no means as certain as I could have wished.

The Carnarvon Tablet no. I belongs to a pair of hieratic writing-boards found among loose débris of pottery and fragmentary mummies on a ledge near the entrance to a plundered tomb in the Birābi, not far from the mouth of the Deir el Bahari valley<sup>2</sup>. The tomb in question is assigned by Mr Howard CARTER to the Seventeenth Dynasty, and we have every reason to believe that this attribution is correct. The two writing-boards are of a type not uncommon at this period, consisting of wooden tablets covered with stucco of fine plaster and having, in the middle of one of the shorter sides, a hole by means of which they could be hung up. Tablet no. I bears on the obverse the historical text here to be considered, and on the reverse first a new copy of the beginning of the well-known *Proverbs of Ptahhotep*<sup>3</sup> and below this the lines of a draughtsboard in squares 10 × 3. Tablet no. II<sup>4</sup>, of much smaller size

<sup>1</sup> THE EARL OF CARNARVON and HOWARD CARTER, *Five Years' Explorations at Thebes*, London, 1912, pl. XXVII, XXVIII, and pp. 29-7.

<sup>2</sup> *Op. cit.*, p. 4 and p. 35.

<sup>3</sup> See G. MASPERO, *L'Ostracon Carnarvon et le Papyrus Ptahotep*, in *Rév. de l'As.*, vol. 31 (1909), pp. 146-153. Another transcription in E. A. W. BUDGE, *Egyptian Hieratic Papyri*, London, 1910, pp. xxviii.-xxix. A large-scale photographic facsimile in G. JAJUER, *Le Papyrus Ptahotep et ses variantes*, Paris, 1911, pl. 16.

<sup>4</sup> EARL OF CARNARVON and HOWARD CARTER, *op. cit.*, pl. 29.

but written in the same or a very similar hand, contains a much-damaged literary composition, probably of didactic character; the missing corner was purchased from a dealer by Professor PETRIE, and subsequently identified by me, and is still in my hands awaiting to be joined to the larger fragment in the Cairo Museum.

The circumstances of the find would predispose one to attribute these writing-boards to the Seventeenth, or at the very latest, to the beginning of the Eighteenth Dynasty. Sir Gaston MASPERO, however, in commenting on the above-mentioned duplicate of the *Proverbs of Ptahhotpe*, expresses the opinion that the scribe by whom this was written lived towards the time of the Twentieth Dynasty, "car l'écriture de son livre semble se rattacher aux mains cursives de cette époque plutôt qu'à celles de la XVIII<sup>e</sup>," and he therefore draws the conclusion that the text of the obverse represents "le commencement d'un conte à demi historique, dont l'action se passait dans l'an III du Pharaon Kamôsis de la XVIII<sup>e</sup> dynastie." M. le capitaine R. WEILL, in an interesting but wholly unconvincing treatise on the documentary evidence for the Hyksos period<sup>1</sup>, similarly disputes the historical character of the Carnarvon Tablet, though admitting that it may date back as early as the beginning of the Eighteenth Dynasty. Professor NEWBERRY, on the other hand, declares emphatically that this document "is certainly not a tale (as has been suggested) but deals with exact history, and if we compare it with the so-called 'Tale of Apepy and Seqenenre' preserved in the *Sallier Papyrus no. II* (sic, *lege* no. 1), we find some points which lend colour to the old theory that this *Sallier Papyrus no. II* is a copy of an earlier historical document, and not simply a popular romance<sup>2</sup>."

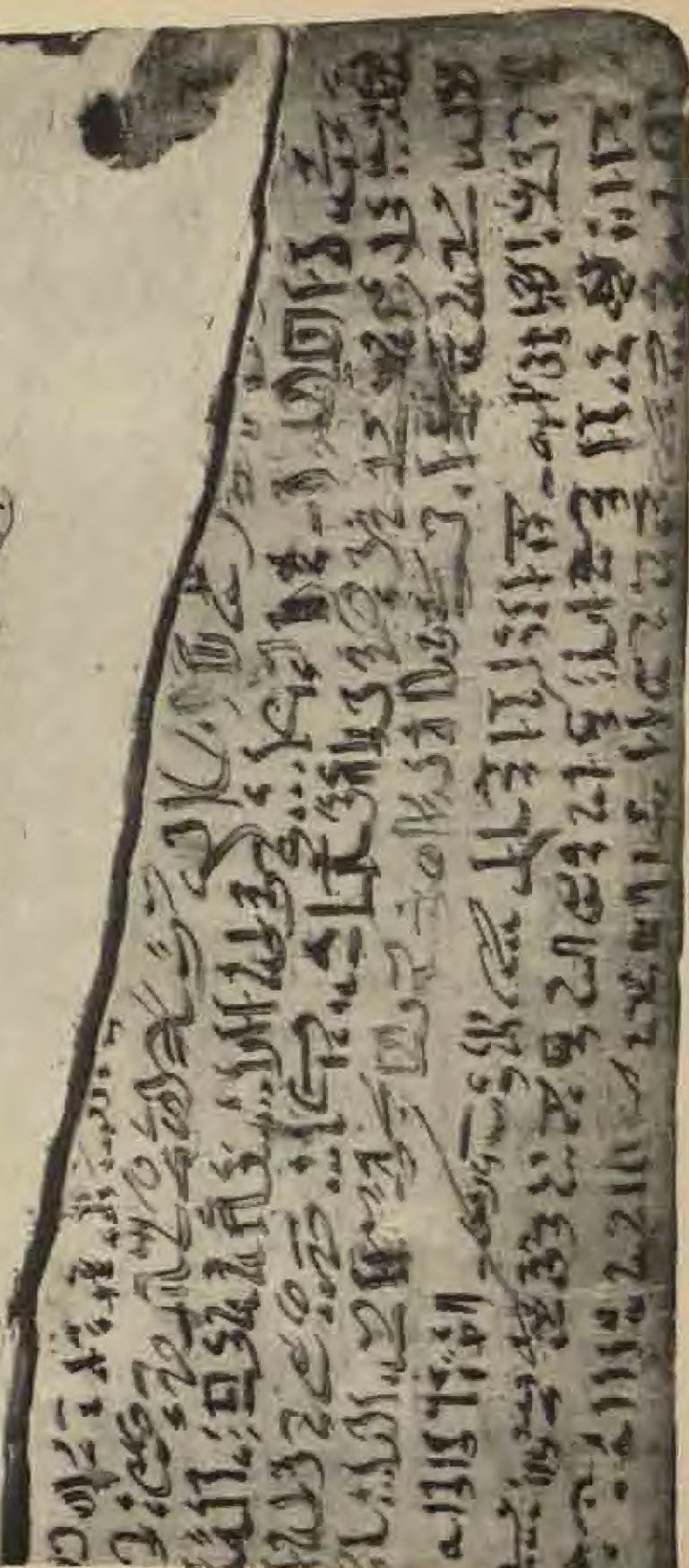
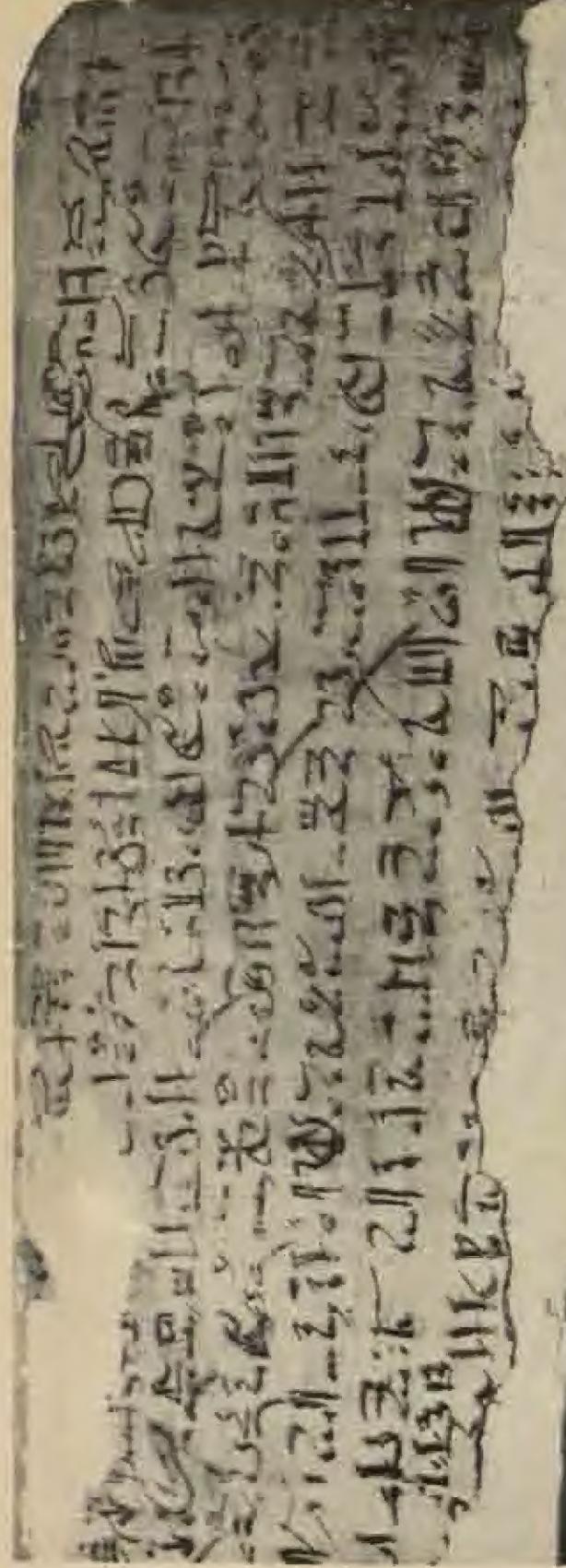
Though it is impossible to agree with Professor NEWBERRY as regards this latter point, he is undoubtedly right in stating that the hieratic writing is that "characteristic of the end of the XVIII<sup>th</sup> Dynasty." This verdict is thoroughly borne out alike by its general appearance and by a detailed scrutiny of its individual forms. There is the same love of rounded shapes and terminal flourishes which we find in the *Rhind Mathematical Papyrus*, the *Westcar* and the *Papyrus Ebers*. For the minuter differences of form which distinguish this group of manuscripts, ranging from the beginning of the Hyksos period down to the reign of Amenophis I, from those of later date, reference must be made to Dr MÖLLER's standard work on hieratic palaeography<sup>3</sup>; students may be specially recommended to note the forms of  (Tablet, l. 2; MÖLLER, no. 142),  (T., l. 6, 15, 16; M., no. 166),  (with simple oblique stroke running through the sign, T., l. 4, 7; M., no. 179),  (T., l. 3, 10; M., no. 392),  (T., l. 16; M. 209),  (T., l. 10; M., no. 474). Wholly peculiar to the Hyksos group are the ligatures for  (T., l. 1, 2, 10, 15; M., no. 540b), and for  (T., l. 14; M., Anhang, no. LXXXIII). The Carnarvon Tablet exhibits a number of remarkable shapes which are

<sup>1</sup> R. WEILL, *Les Hyksôs et la restauration nationale*, Paris, 1911; appeared first in *Journal Égyptien*, 10th series, vols. 16 (1910) and 17 (1911). The Carnarvon Tablet is discussed in an additional article published *Journal Égyptien*, 11th series, vol. 1 (1913), pp. 536–544.

<sup>2</sup> P. E. NEWBERRY, *Notes on the Carnarvon Tablet No. I*, in *Proc. S.B.A.*, vol. 35 (1913), pp. 117–122.

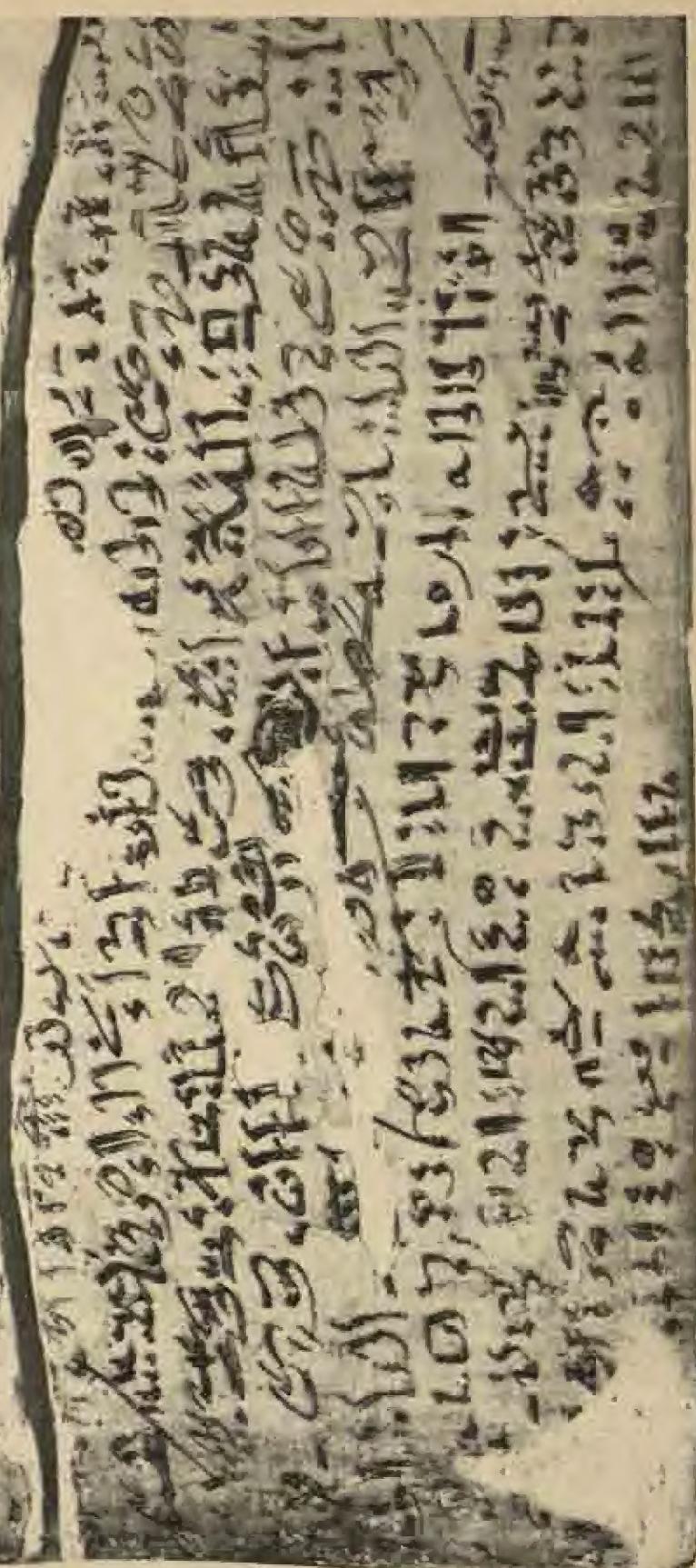
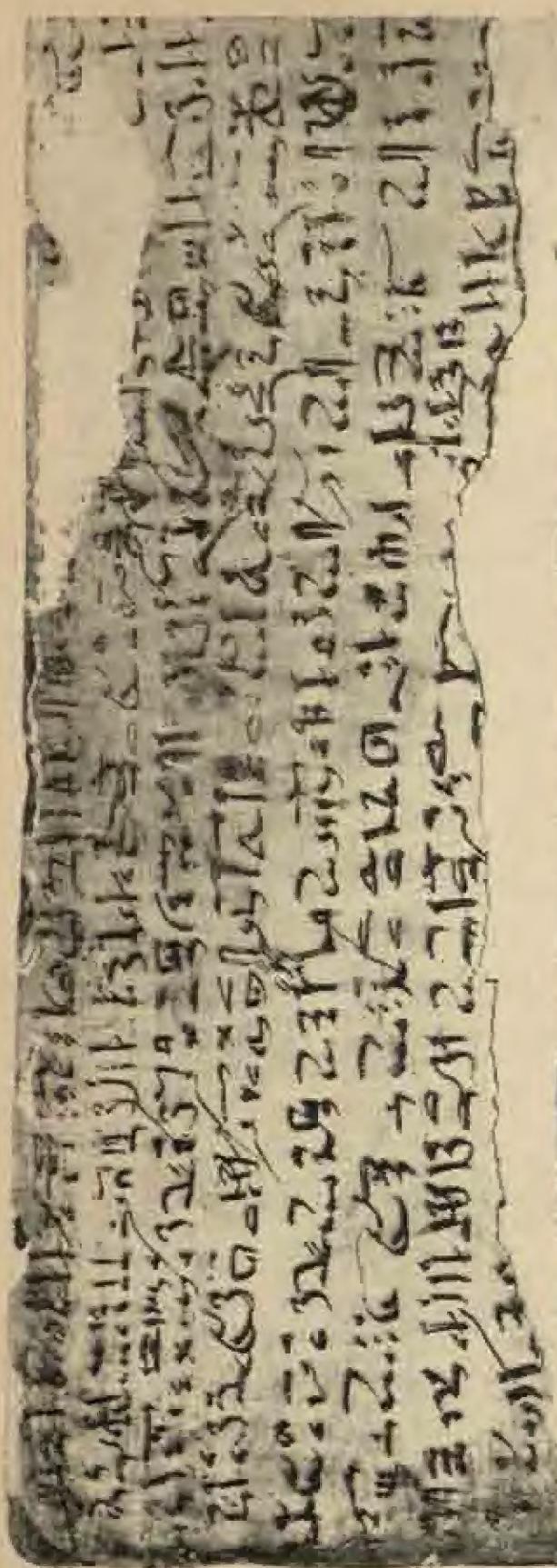
<sup>3</sup> G. MÖLLER, *Hieratische Paläographie*: I, *Alt- und Mittelhieratisch*; II, *Neuhieratisch*, Leipzig, 1909.





CARNARVON TABLET No. 1

Right-hand portion



CARNARVON TABLET No. I

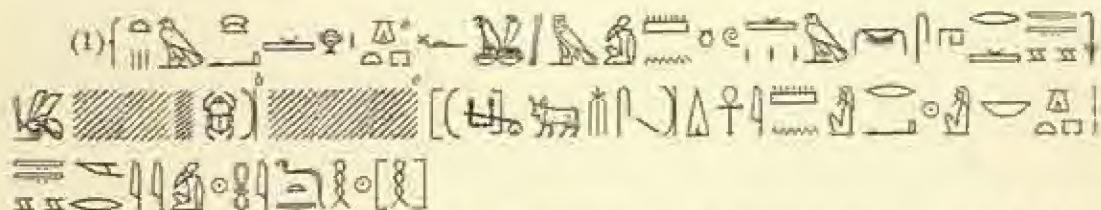
Left-hand portion



not of common occurrence anywhere else, but which are in general agreement with the tendencies of the group to which it has been seen to belong; thus the very unusual form of  (T., I, 1, 3;  I, 12), the elaborate  of I, 1, the unique  of I, 11 — is used for the preposition  expressing the dative, as in the Hyksos manuscripts (MÖLLER, vol. I, p. 17, n. 3). Other peculiarities will be pointed out in the notes on the text.

It may be considered certain, therefore, that the Carnarvon Tablet no. I is very nearly contemporary with the events it records; in no case can it have been written more than fifty years later. The question as to its value as a historical document is better deferred until we have become acquainted with the contents.

#### TEXT, TRANSLATION AND COMMENTARY.

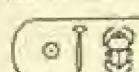


\* For the form cf. *Sinuhe B*, 207. \* Sufficient traces. \* The lacuna is too large for *st R'* alone, unless *R'* was written out phonetically.

*Year 3, Horus "Appearing-upon-his-Throne," Two Goddesses "Repeating-Monuments," Horus of Gold "Making-content-the-Two-Lands," King of Upper and Lower Egypt [Wazkhe]per[re], Son of Rē] Kamōse, granted life, beloved of Amen-rē, lord of Thrones-of-the-Two-Lands (Karnak), like Rē for ever and ever.*

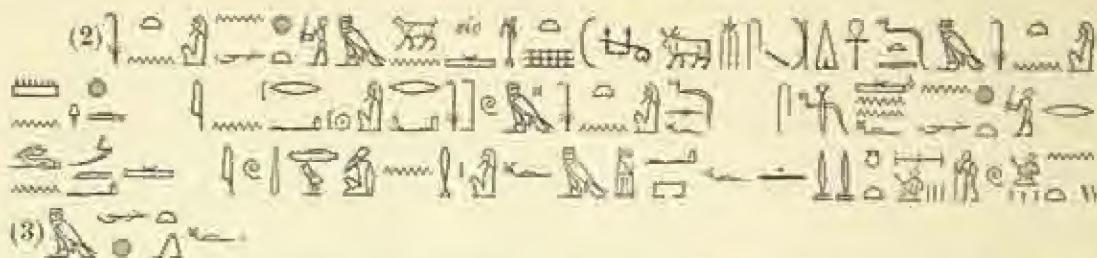
The text opens with the date and full titulary of Kamōse.

 ought properly to be written  , but among the exceptions quoted by SETHE, *Untersuchungen*, vol. II, p. 88, there are two dating from the reign of Amōsis I—Mr GRIFFITH, followed by Professor NEWBERRY, wrongly reads "year 7."—It is quite unusual to find the date thus immediately preceding the full titulary.

The Horus-name here given is very different from that found (*sdj-t,wi*) on the ebony fan of King Kamōse preserved in the Cairo Museum; and for this reason M. WEILL (*op. cit.*, p. 156) and M. GAUTHIER (*Le Livre des Rois d'Égypte*, vol. II, p. 169) think that they cannot belong to one and the same Pharaoh. The prenomen of the Tablet, however, may easily be restored as , the name elsewhere attributed to

Kamōse, and the grounds for concluding the existence of a second Kamōse seem at present, therefore, to be extremely slender; see too Dr BURCHARDT in *Zeitschrift für ägypt. Sprache*, vol. 50 (1912), p. 121, n. 3.

The words *mi R' dt nhb* really belong to *dī 'nh*. For a possible explanation of their displacement see below, p. 109.



\* The tails of *w* and *m* are visible, and there is a speck before them which might well belong to *m*. \* Sic, with a superfluous *w*.

*The victorious king within Thebes Kamōse, granted life eternally, was beneficent king; and Ré [made] him into a veritable king, and granted to him victory in very truth. Thereupon His Majesty spoke in his palace to the council of officers which was with him.*

The general situation is depicted in a few short phrases, upon which the King addresses his courtiers in the Palace. The beginning of the *Prophecy to King Snofru* in Pap. Petrie 1116 is strikingly similar. "Now it happened that the Majesty of King Snofru was beneficent king (*nsw mnḥ*) throughout this land; and on one of those days it happened that the courtiers entered in.....And His Majesty said....." There, however, the preliminary details are dwelt upon with an elaboration which is quite foreign to our text.

The restored word *rdj* undoubtedly gives the sense of the sentence, but possibly the actual word employed was different, e.g. *smn*, *s'h*. It would seem that the events that are to be recorded are here anticipated; or, in other words, the might of Kamōse at the end of his reign is parenthetically described.

*Nsw dsf* "veritable king," lit. "the king himself," an extreme use of this expression.



\* A bad smudge begins at *dsf* and *—* is extremely doubtful; there may, however, have been some correction, through which the *w* of *smw* was deleted; *ds* is not a possible reading. \* The joining of the dot and stroke is peculiar to this text, but occurs often enough to be beyond doubt.

\* *—* is smudged almost out of recognition, but there appears to be no other possibility. \* Or *—*,

\* An incipient but probably accidental stroke is visible above *—*. \* *Mt* is quite doubtful, as well as the *w* following it. \* It is easier to interpret this sign as *fr* than as *pm*, in spite of its four vertical strokes, *fr* having invariably a back-turned stroke at top, and no horizontal line at bottom; see Möller, no. 504.

*"I should like to know what purpose serves my strength, when one prince is in Avaris and another is in Kush, and I sit united with an 'Aamu and a Negro—each man holding his slice of the Black Land—who share the land with me. I do not pass him (?) as far as Memphis, the water(?) of Egypt. Behold, he holds(?) Shmûn, and no man rests, being wasted(?) through servitude(?) of the Setyu."*

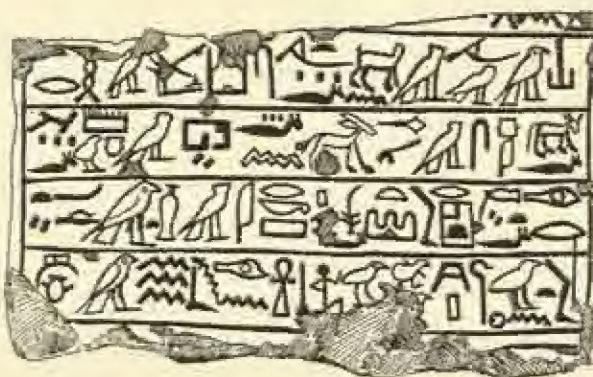
The speech of the king is quite intelligible at first, but later on becomes involved in great obscurity.

The first sentence construes literally: "let me perceive, it is for what my strength, a prince (being) in Avaris and another in Kush."

*Avaris*, Avaris, the stronghold and capital of the Hyksos, identified by MARIETTE and DE ROUX with Tanis, by PETRIE (*Hyksos and Israelite Cities*, pp. 9–10) with an encampment or settlement of the Hyksos period found by him at Tell el Yahudiyyeh, while WEILL (*Les Hyksos*, pp. 173–174) hesitates between Heliopolis and an indeterminate site somewhere in the Eastern Delta. The historical and literary texts in which it is mentioned throw little light upon its localization beyond establishing the fact that it was in the Delta: the *Story of Seqnefer* and *Apophis* gives the full writing (SALLIER 1, 1, 2); the biography of Ahmose of El Kab relates its siege and capture (SETHE, *Urkunden*, IV, 3–4); the inscription of Hatshepsut at Speos Artemidos tells of the time "when the 'Aamu were in Avaris of the Delta" (*op. cit.*, IV, 390). MANETHO is far more illuminating: in the account of the Hyksos invasion preserved *verbatim* by JOSEPHUS (*Contra Apionem*, 1, 78), he narrates how the first Hyksos king Salatis, fearing an invasion from the East, found "a most convenient city in the Sethroite nome lying to the east of the Bubastite river, and called Avaris for some old theological reason" (ἐν νομῷ τῷ Σεθροῖτῃ πόλιν ἐπικαρπότατην, κειμένην μὲν πρὸς ἀρατολήν τοῦ Βουβαστίτον ποταμοῦ, καλουμένην δὲ τοὺς ἀρχαῖς θεολογίας Αὔρατ). The MS. reading in this passage is Σάτη, which is inherently absurd; the emendation Σεθροῖτη is assured by the rendering *per legem Methrauitem* in the Armenian version, and by the equivalent ἐν τῷ Σεθροῖτῃ νομῷ in the epitome of Manetho's history handed down by Africanus and Eusebius. The Greek writers show themselves particularly well informed about Avaris and its history, Ptolemy of Mendes relating its capture by Amosis I (see E. MEYER, *Aeg. Chronologie*, p. 74, n. 1), and Manetho (in JOSEPHUS, *Contra Apionem*, 1, 237) being aware that it was Typhonian, i.e. that Seth was worshipped there. It is therefore quite unreasonable, without cogent grounds, to doubt the evidence of Manetho, which, as Dr GRENfell points out to me, is quite explicit. The Sethroite nome appears to lie wholly to the east of the Bubastite or Pelusiac branch of the Nile, and is bounded to the south by the well-located Arabian nome with its capital at Phacusa, the modern Fakûs. The chances are, accordingly, that Avaris lay quite close to the caravan-route to Syria, which is now known to have started somewhere near Kantarah<sup>1</sup>; and there are reasons which

<sup>1</sup> See KÜNTLAHN, *Die Ostgrenze Aegyptens*; my own notes in *Hieratic Texts*, vol. 1, pl. 29\*; and new evidence from Kantarah bearing on the localization of Tharu somewhere in the vicinity published in *Annales de Service*, vol. 12 (1912), p. 76, and more fully in *Bulletin de l'Institut franç. d'Arch. Orient.*, vol. 11 (1913), pp. 29–38. Kantarah itself is more probably *Mm*, see *Recueil de Travaux*, vol. 31 (1909), pp. 113–120.

urge us to seek it as far north as possible, and as nearly as possible on the fringe of the desert, i.e. anywhere between Kantarab and Pelusium. The first of these two points emerges from a fragmentary stele, evidently coming from Edfu, shown in the accompanying cut, where an official whose home was at Edfu, and who may well have



lived in the Hyksos period, states that he "made his north at Avaris, and his south at Kush!" For the second point the name of the town itself is significant; as the variants (the stele above quoted) and (SETHE, *Urkunden*, IV, 390) show, its meaning is "the town of the desert-strip," and this is perhaps borne out by the fact that at exactly the opposite extreme of the Delta, in the Libyan nome, was a town called "the Western *Hjt-wrt*" (BRUGSCH, *Dict. Géogr.*, 144).<sup>1</sup>

Against this conclusion very little contrary testimony can be urged. It is true that the Hyksos rulers showed a great partiality for Tanis, and that monuments erected both by them and by Ramesses II and Menephtah there often mention Seth and even "Seth, lord of Avaris"; see WEILL, *op. cit.*, pp. 168—172, for an enumeration of the monuments in question. But a statue of king Nehasi, who has been thought to be a vassal of one of the early Hyksos rulers, also bears the epithet "beloved of Seth, lord of Avaris," though it was found at Tell Mokdam and not at Tanis. Clearly, the reason why Hyksos rulers call themselves "beloved of Seth, lord of Avaris" is because Avaris was their capital and Seth its god, and this holds good whether the monuments on which they are so called were erected at Avaris itself or elsewhere. It is not quite so easy to account for the statues erected or usurped by Menephtah at Tanis, on which he calls himself "beloved of Seth, lord of Avaris" (PETRIE, *Tanis*, I, 2, 5a; Berlin, *Aeg. Inschr.*, II, pp. 19—22); but Seth appears to have been the principal god of Per-Ramesse, the northern capital of all the earlier Ramessides (*Harris*, I, 60, 2—3), and the evidence concerning Per-Ramesse, which I cannot quote here, goes to show

<sup>1</sup> This stele, purchased by me at Luxor, contains a number of phrases not rare on steles about this period, and may be translated as follows:—".....who crossed (the Nile) in his own ferry-boats, who ploughed with his own cattle, who trod in (the seed) with his own asses, who made a garden (I) of his own trees, making his north at Avaris and his south at Kush, by the favour of Horus Behdet, the *kartsu* of a town, at the table of a prince, Thou, living a second time, son of the *web-priest* Har-ew-yub." For the rare verb *pis* see LANG-SCHAFFER, *Grab- und Denksteine*, nos. 20490, 20530, both from Edfu.

<sup>2</sup> Possibly, however, the name of the western town ought to be read *Hjt-wrt*, see BAUASCH, *Dict. géogr.*, p. 256, and DUMMERS, *Geogr. Inschr.*, I, 82, compared with *op. cit.*, III, 41.

that it must have been situated in much the same region as that in which Avaris, according to our evidence, seems to have lain; indeed it appears not impossible that Per-Ramesse may have been built on the site of Avaris itself, though this is mere conjecture. Except during the Hyksos and Ramesside periods there is no trace of Seth at Tanis, and its god seems from a number of its monuments, as well as from its coins, to have been a form of Horus. The last piece of evidence which has been adduced for the identity of Tanis and Avaris is the scene (date, Ramesses II) sculptured on a temple wall seen by BRUGSCH at Memphis and published by him in his *Dictionnaire géographique*, p. 270; here the Nile-god personifying  Avaris follows immediately after the Nile-god personifying  Sekhet-Za'. It is not quite certain that the last name should be emended into  Sekhet-Za'anet and identified with the "field of Zoan" (Tantis) in Psalm 78, 12-43; for the Ptolemaic lists<sup>1</sup> all give the name of the *pehu* of the Fourteenth Nome , whose capital was Tharu, in the form . Yet in favour of that emendation is the curious fact that  is closely associated with Tharu on several stelae and statues: the stele 22189 of the Cairo Museum (*Bulletin*, vol. 11 [1913], pp. 35-36, with bibliography), the statues of Teos, also in Cairo (BRUGSCH, *Dict. géogr.*, p. 303, 418 = DARESSY, *Recueil de Travaux*, vol. 15 [1893], pp. 151-155), and another statue published by DARESSY (*op. cit.*, p. 150). Strange as it may seem, the evidence that we possess thus points to Tantis as belonging to the same nome as Tharu and Mesen, in spite of the very considerable distance that separates them. This problem, and the relations of Tantis and Zaru to the nome of which Nebesheh was the capital, must be left to others to settle. For our purposes here all that is necessary to be observed is that the juxtaposition of Avaris and Sekhet-Za' on the Ramesside wall at Memphis cannot prove that Avaris was near Tantis; since the two places are distinguished, and not identified, on that monument, neither of them can form the basis of any argument as to the position of the other.

For Professor PETRIE's contention that Avaris is Tell el Yahudiyyeh there is really no reason whatever. His arguments rest on a misconception of the meaning of the words *τοῦ Βουβαστίτου ποταμοῦ*, on the rejection of the reading *Σεθρόπη* in JOSEPHUS, and on the erroneous supposition that the Wady Tumilat was the regular route by which invaders have always reached Egypt.

There can be but little doubt that  should be emended.—For *fdk* "to sever," "cut up," see my note *Proc. S.B.A.*, vol. 26 (1914), p. 73.—The words *sl nb*, etc. are probably parenthetical, and *ps̄* following is a participle, whether singular or plural; for the phrase cf.  "there is none other who shares it (the land) with thee," *Dream-stele* = SETHE, *Urkunden*, III, 62.—For *t*; *Kmt* here and *t/n Kmt* below, l. 5, cf. SETHE, *Urkunden*, IV, 4.

<sup>1</sup> E.g. the great Edfu list BATZSCH, *Dict. géogr.*, p. 1373 and the mythological text, also from Edfu, *ibid.* p. 1380.

The following sentences present great difficulties. If the reading  is right, the twice-repeated  must (*cf.* I. 7) refer to 'A'am "the Asiatic," supplied out of the sense of the preceding words.— is unintelligible as it stands; my conjectural emendation  is a mere guess, and a very hazardous one.—The absolute use of  r (also below, II. 5, 6) can be paralleled really only in the phrase  SETHE, *Urkunden*, IV, 649; the Coptic preposition  and the late-Egyptian  originate in r  m or r  r. *H.t-Pth* is for *H.t-k-Pth*; whether  Kmt is in apposition to this, or is to be otherwise construed is obscure.—  is of course  Hermopolis Magna, the modern Eshmunen.

There is a superfluous *n* after *hn* due to that word ending with the same letter. The stem means "to alight," of birds, or "to stop" at a place, of persons; these senses lead easily to that here suggested, but no exact parallel seems to be forthcoming.—*Fk* may be the word that is applied to Israel on the *Israel stela*, I. 27; possibly the old *f.k* "to be shorn."—*M bkw Styw* is susceptible of two renderings, (1) "through the machinations of the Setyu-Asiatics," (2) "through servitude to (corvées performed for) the Setyu"; the latter seems the more probable.



\* Smudged signs that can hardly be interpreted otherwise. \* Above t is a deleted sign, badly smudged. \* The stroke above the arm may be fortuitous, and the reading *bkt* is far from certain; *ba* would be a possibility, though rather differently written I. 3 *ad finem*, the closest comparison; but this makes no good sense.

*I will grapple with him, that I may cleave open his belly. My desire is to deliver Egypt, and to smite (?) the 'A'amu.'*

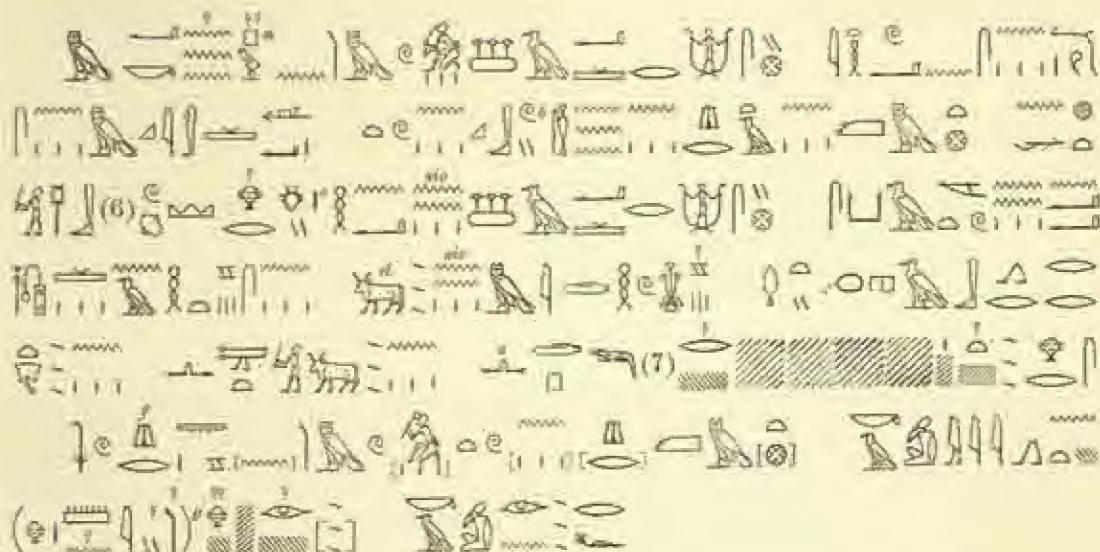
The king here expresses his determination to fight against the Asiatics.

There is nothing inherently impossible in the construction *twi r*, but it does not seem to occur elsewhere, *iwi r* being always used instead.—*Thn* appears to mean "to move quickly." The complete phrase for "to grapple with" is   , *cf.* SETHE, *Urkunden*, IV, 656; DE ROUGE, *Inscr. hier.*, 243, 49, but *thn hn*, as here, is found in SETHE, *Urkunden*, IV, 710; MARIETTE, *Karnak*, 63, 31.



*Then spoke the great men of his council.*

The officials of Kamōse reply to him, and seek to dissuade him from his warlike schemes.



\* One expects a verb ending with ; *pw* is hardly possible without assuming the hieratic to be corrupt. \* *Wj* above the line as an addition. \* *Hr* exceedingly doubtful. \* For the unusual form perhaps compare the *Herdsman's Story* (*Pap. Berlin 3024*), L. 18. \* Or . / The form is more suitable to than to , but there are examples of the latter (L. 3, 5) which approximate to the shape here given. \* These words, of which neither the reading nor the proper place is certain, stand above the line as a correction.

"Behold, the 'A'amu have [advanced(*l*)] as far as Cusae, they have pulled out(*l*) their tongues all together. We are secure in the possession of our Black Land. Elephantine is strong, and the middle part(*l*) is with us as far as Cusae. The finest(*l*) of their fields are ploughed for us. Our cattle are in the papyrus marshes. The spelt is sent(*l*) to our swine. Our cattle are not taken away.....on account of it. He holds the land of the 'A'amu, and we hold the Black Land. Then [whoever(*l*)] comes and lands(*l*) and acts(*l*) [against(*l*)] us, then do we act against him."

The reply of the council seeks to represent the political situation in a favourable light. It is true that the Asiatics have now advanced *en masse* to Cusae, but the rest of Egypt, as far as the stronghold of Elephantine, remains in Kamōse's uncontested possession. The next phrases would seem to imply that the occupation of the country by the foreigners was nominal rather than actual, since the Thebans could profit from the cultivation of the soil even outside their own domain, and could send their cattle to pasture in the Delta. This being so, a pacific policy is advised: Kamōse should wait until the enemy takes the offensive.

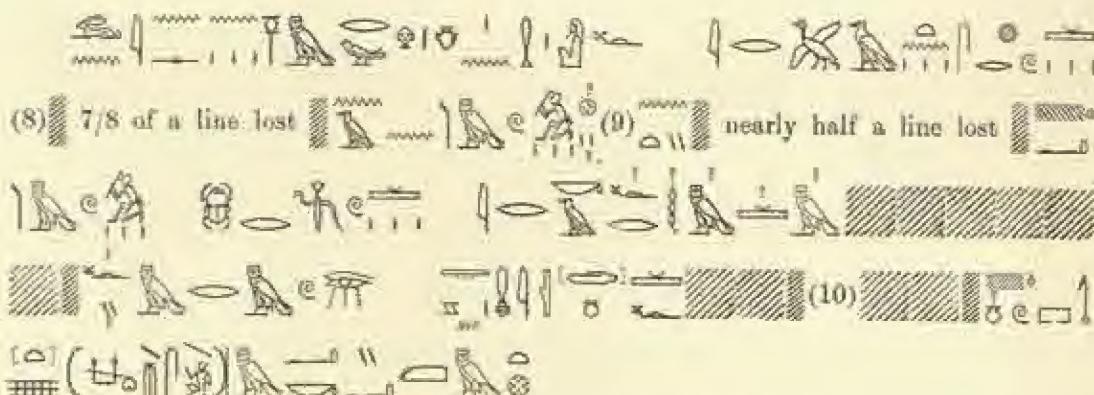
If *mw pw* were to be read this would have to mean "the territory loyal to"; the metaphorical use of *mw* is well known, see BRUGGSCH, *Dict.*, p. 635, and e.g. "I navigated on the water of my father," MASPERO, *Temples Immmergeés*, vol. I, p. 163. In this case translate: "It is the dominion of the

Asiatics as far as Cusae." However, it is possible, and perhaps even more probable, that a verb of motion is concealed in the dubious signs.

The phrase *lth ns* does not appear to occur elsewhere.—*Kb* "cool," "quiet"; so, for example, in passages quoted by SPIEGELBERG, *Zeitschrift für ägypt. Sprache*, vol. 34 (1896), p. 22.—*N'*, of fields, occurs in a late inscription, where a certain kind of field is named ; the meaning is uncertain, *Zeitschrift für ägyptische Sprache*, vol. 35 (1897), p. 14, l. 3, etc.

The meaning of the sentence beginning with the word *bd-t* is uncertain. Can there be a reference to the treading in of the seed by swine as mentioned by Herodotus (ii, 14) and illustrated in certain Theban tombs? Or is the sense that spelt is so abundant that it is even thrown to the swine?

For *dp* see SPIEGELBERG, loc. cit., p. 20.

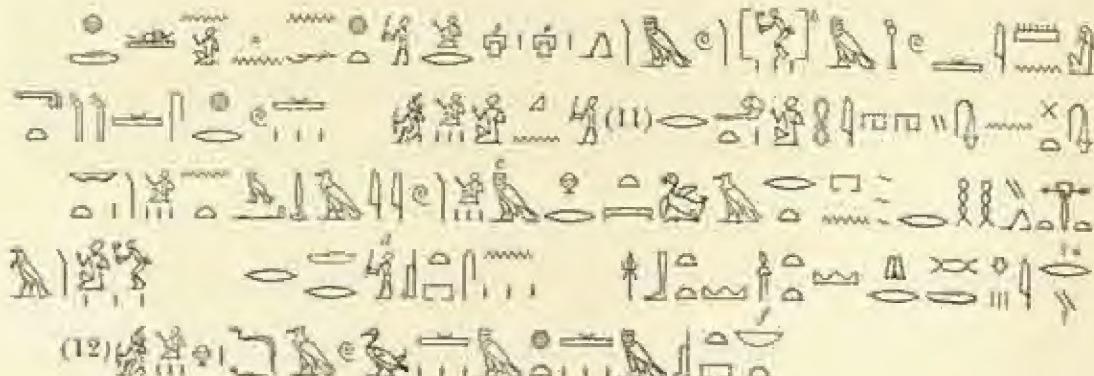


\* Un' probable. \* If true is quite likely, cf. l. 13.

*Now they were displeasing in the heart of His Majesty:—"As for your counsels... these 'A'amu, who.....[Behold, I will fight(?)] with the 'A'amu, until(?) good fortune comes. If.....with weeping. The entire land [shall acclaim me(?) the victorious ruler(?)] within Thebes, Kamōss, who protects Egypt."*

The king expresses displeasure at the words of his councillors, and reiterates his intention to fight.

The restoration of the last words is suggested by the beginning of l. 2.



A correction; probably over a deleted *m* of which the lower end is still visible. \* Certain;  
for the spelling see l. 13. \* *M* partly deleted. \* Written almost like *x*. \* Or †  
† Highly probable; ‡ has been suggested, but is not appropriate to the context nor yet in keeping  
with the orthography of the period.

I sailed down as a champion to overthrow the 'A'amu by the command of Amān,  
just of counsels, my army being valiant in front of me like a fiery blast; troops of Mazoi  
on the top(?) of our strongholds(?) to spy out the Setyu and to destroy their places;  
East and West bringing their fat, and my army abounding in supplies everywhere.

From the account of the deliberations which preceded the campaign Kamose now goes on to narrate the events of the campaign itself, speaking in the first person.

*S's;* "to repel," "overthrow," perhaps Coptic *coc evertre*, transitively only here, below, l. 14, and *Vienna Stele*, no. 66 = *Recueil de Travaux*, vol. 9, p. 38.  "standard-bearer of (the regiment called) 'Overthrowing Takhisa!'"

The name *Md'y Mazoi* really refers to a particular race of Nubians, whom the Egyptians appear to have used as auxiliaries. In the New Kingdom the word seems to be used in a non-ethnic sense to mean something like "policeman"; and some have thought it to be the origin of the Coptic *μάτοι* "soldier," for which at all events we have no other satisfactory derivation (see, however, GRIFFITH, *Rylands Papyri*, p. 319).—


 is a rare word, occurring in the title                                                        

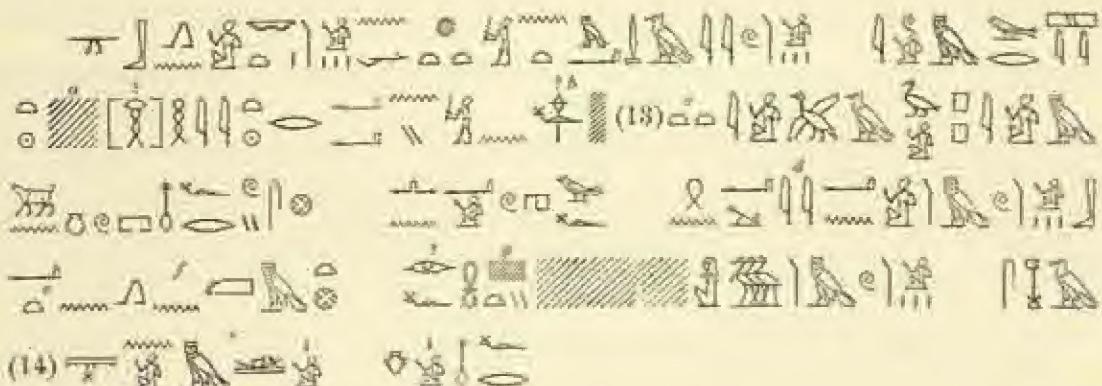
                                                        

                                  <img alt="Egyptian cartouche symbol" data-bbox="605 2665 6



\* Hardly *m.* \* Or ! The last sign of the line might be *m.* \* The reading *Tti* may be regarded as certain; two consecutive  would naturally at this period have the same appearance.

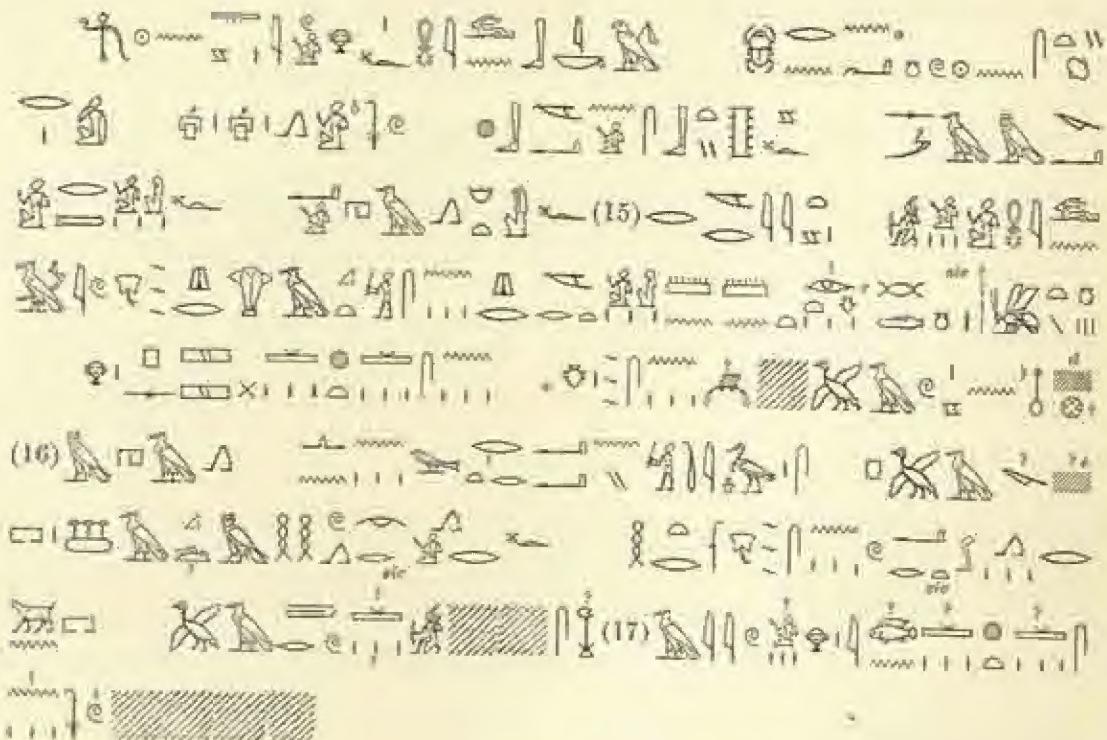
as  $\text{--} \square \odot$ , for which see MÖLLER, *op. cit.*, vol. 1, p. 72, no. xxxviii. \* A correction. \* Perhaps the two lower signs are to be joined and read as  $\text{---}$ ; the word intended is unknown. / Partly covered by *tum*. \* *Mi uti*

*I sent forth a strong troop of Mazōi, and spent a while(?) in order to coop up(?) .... Teti the son of Piopi in Nefrusi. I suffered him not to escape. I turned back the Asiatics, I..... Egypt....., and he made(l) as one who.....the power of the Asiatics. I spent the night in my ship, my heart being glad.*

This passage teems with difficulties, both palaeographical and lexicographical. The word "ny" occurs obscurely below l. 16, and nowhere else; with it may perhaps be connected  $\text{---} \text{---} \text{---}$  in the Annals of Tuthmosis III (SETHE, *Urkunden*, IV, 661), which possibly means a military encampment or enclosure.

Nefrusi, properly written  $\text{---} \text{---} \text{---} \text{---} \text{---}$ , is the next place of importance north of Shmūn in the Golénischeff Glossary, and was in no case situated further away than Kôm el-Aḥmar; see NEWBERRY's note, *op. cit.*, p. 119, n. 11.

*Swh*, "to spend the night" is not known to me elsewhere in this form; but a word *swh*, which may be related occurs *Prisse* 14, 5; AYRTON, *Abydos III*, pl. 20.



\*  $\text{---}$  is more probable than  $\text{---}$ . \* A correction. \* Very doubtful, and probably corrupted out of the determinative of *mamni*; *ibr* = milk\* is not probable. \* Reading very doubtful; perhaps some corruption of *Nfrusy*. \* Perhaps emend *p' u n* again.

*When day dawned I was on him, as it were a hawk. When the time of perfuming the mouth (?) arrived, I overthrew him, I destroyed his wall, I slew his folk, I caused his wife to go down to the river-bank. My soldiers were like lions with their prey, carrying off slaves, cattle, fat and honey, and dividing up their possessions, their hearts rejoicing. The region of Nef[rasi(?)] came down (?), it was no great thing for us (?) to confine its soul (?). The (?)...of Per-Shaq (?) was lacking (?), when I came to it. Their horses (?) fled inside. The garrison (?).....*

The discomfiture of Teti, son of Piopi, in the region of Nefrusi, is related.

The analogy of other texts, e.g. Sinuhe R. 36, makes it probable that *hypn nw nsty-r'* refers to some specific hour of the day; but *sty-r'*, "perfume of the mouth" does not seem to occur elsewhere except as a feminine proper name. The alternative is to suppose that the word is a poetical synonym for "a breath," and that the sentence means "in as short a time as it takes to draw a breath."—The sending down of Teti's wife to the river-bank must signify that she was appropriated by the conqueror.—*Pssy* is an impossible form; the ordinary infinitive *pss* should be emended.

The meaning of the last few sentences is extremely problematical, and my conjectural renderings make very free with both vocabulary and grammar.—*Pr-S;k* is an unknown place-name; the reading is none too certain.—*Htr* here more probably refers to horses than to cattle; if horses are meant, this will be the earliest Egyptian reference to them.

A few words remain to be said with regard to the writing and the language of the text in general. It is the work of a very careless and ignorant copyist, and abounds in smudges, alterations and ambiguities of all sorts. These defects are mainly responsible for the difficulties experienced by a translator, though it must be admitted that new words and idioms not found elsewhere are also to be counted among the obstacles.

The grammar, on the whole, is that of the historical texts of the Middle Kingdom, but here for the first time we find the independent use of       even perhaps (l. 4) in the formation of a future tense *twi r*, which does not recur later. The employment of the possessive adjectives     is also a departure from the old annalistic style. Under the stricter administration of the Tuthmosides this encroachment of popular idiom upon the more formal official style is repressed; but in the snatches of conversation inscribed on the walls of private tombs such lapses are by no means rare.

#### CONSECUTIVE TRANSLATION.

Year 3, Horus "Appearing-upon-his-Throne," Two Goddesses "Repeating-Monuments," Horus of Gold "Making-content-the-Two-Lands," King of Upper and Lower Egypt [Wazkhe]per[re], Son of Re' ] Kamose, granted life, beloved of Amen-re', lord of Thrones-of-the-Two-Lands (Karnak), like Re' for ever and ever.

The victorious king within Thebes Kamose, granted life eternally, was beneficent king; and Re' [made] him into a veritable king, and granted to him victory in very truth. Thereupon His Majesty spoke in his palace to the council of officers which was with him;

"I should like to know what purpose serves my strength, when one prince is in Avaris and another is in Kush, and I sit united with an 'A'amu and a Negro—each man holding his slice of the Black Land—who share the land with me. I do not pass him (?) as far as Memphis, the water (?) of Egypt. Behold, he holds (?) Shurun, and no man rests, being wasted (?) through servitude (?) of the Setyu. I will grapple with him, that I may cleave open his belly. My desire is to deliver Egypt, and to smite (?) the 'A'amu."

Then spoke the great men of his council:—"Behold, the 'A'amu have [advanced (?)] as far as Cusae, they have pulled out (?) their tongues all together. We are secure in the possession of our Black Land. Elephantine is strong, and the middle part (?) is with us as far as Cusae. The finest (?) of their fields are ploughed for us. Our cattle are in the papyrus marshes. The spelt is sent (?) to our swine. Our cattle are not taken away.....on account of it. He holds the land of the 'A'amu, and we hold the Black Land. Then [whoever (?)] comes and lands (?) and acts (?) [against (?)] us, then do we act against him."

Now they were displeasing in the heart of His Majesty:—"As for your counsels .....these 'A'amu, who.....[Behold, I will fight (?) with the 'A'amu, until (?) good fortune comes. If.....with weeping. The entire land [shall acclaim me (?) the victorious ruler (?)] within Thebes, Kamōse, who protects Egypt."

I sailed down as a champion to overthrow the 'A'amu by the command of Amān, just of counsels, my army being valiant in front of me like a fiery blast; troops of Mazōi on the top (?) of our strongholds (?) to spy out the Setyu and to destroy their places; East and West bringing their fat, and my army abounding in supplies everywhere. I sent forth a strong troop of Mazōi, and spent a while (?) in order to coop up (?),....Teti the son of Piopi in Nefrusi. I suffered him not to escape. I turned back the Asiatics, I.....Egypt....., and he made (?) as one who.....the power of the Asiatics. I spent the night in my ship, my heart being glad.

When day dawned I was on him, as it were a hawk. When the time of perfuming the mouth (?) arrived, I overthrew him, I destroyed his wall, I slew his folk, I caused his wife to go down to the river-bank. My soldiers were like lions with their prey, carrying off slaves, cattle, fat and honey, and dividing up their possessions, their hearts rejoicing. The region of Nefrusi (?) came down (?), it was no great thing for us (?) to confine its soul (?). The (?)...of Per-Shaq (?) was lacking (?), when I came to it. Their horses (?) fled inside. The garrison (?).....

#### CONCLUSIONS.

In attempting to estimate the historical value of this text it appears to me that the question of the date at which it was written is of far greater importance than the question as to the literary category in which it is to be classed. If, as I believe with Mr GRIFFITH and Professor NEWBERRY, the actual writing dates from within a few years of the time when the events recorded are supposed to have taken place, it is surely incredible that those events should be wholly fictitious. The impression that I gain from the narrative does not agree in the least with that which it appears to have made upon M. WEILL:—"Mais si les caractères paléographiques de cet ordre doivent être pris en considération, ils ne sauraient, dans le cas actuel, prévaloir contre un fait pour ainsi dire immédiat, et qui ressort avec évidence de la seule lecture du

document, à savoir, qu'il fut composé postérieurement à la victoire définitive des Thébains sur les Septentrionaux!" For my part, I am unable to discover any word or phrase which indicates or implies that the writer was aware of the subsequent taking of Avaris and of the ultimate triumph of the Thebans. On the contrary, unless the text in its complete form, against the custom of early times, was as long and circumstantial as the stele of the Ethiopian Piankhi, the detailed description which the Carnarvon tablet gives of the taking of Nefrusi would surely have appeared ridiculously long and out of proportion in the light of the far more important events that followed. Be this as it may, it is impossible to assent to M. WEILL's central proposition, which is that the references to Avaris and to the Asiatics here are merely the conventional clichés of triumphal proclamations of the Eighteenth Dynasty, and as such without historical value. Much space that cannot here be spared would be required to do justice to M. WEILL's complicated thesis. I would merely state that, in my opinion, he altogether overshoots the mark in his ultra-sceptical analysis of our sources; a wholly uncritical acceptance of the letter of their text would, I am convinced, give a better idea of the real historical facts than is obtained by such hypercritical methods.

M. WEILL has, however, rightly perceived<sup>1</sup> that the Carnarvon Tablet belongs to the same category of texts as the great stele of Tutankhamün discovered by M. LEGRAIN at Karnak, though how he reconciles this view with his opinion that it is posterior to the taking of Avaris, i.e. posterior to the reign of Kamöse himself, is not apparent. In point of fact, the Carnarvon Tablet presents all the customary characteristics of the stelae erected in the temples by the Pharaoh in order to commemorate their good deeds or victorious campaigns. On such stelae it is quite usual for the Pharaoh to be represented in debate with his ministers, whose advice often amounts to mere flattering approval of the king's own project, though sometimes, as here, they urge a less daring course of action than the Pharaoh himself proposes and subsequently carries out<sup>2</sup>. It is by no means unlikely that the text of the tablet is a direct copy from a stele set up by Kamöse in one of the Theban temples. There are irregularities in the first line, which suggests that this may have been adapted from the descriptive epithets accompanying the scene of worship regularly found within the rounded upper portion of commemorative stelae. We may picture to ourselves the figure of Kamöse standing before Amün, the royal and the divine titles being engraved above their respective owners' heads; between the two, and at the very top, may have been seen the regnal date. This particular stele may have appealed to the writer of the Carnarvon Tablet on account of the boldness of its metaphors or some other pleasing features in its style. That his motive in making the copy was a literary one may be concluded from the facts that the reverse bears the beginning of the *Proverbs of Ptahhotep* and that the smaller tablet also contained a moral tractate. It does not, however, follow that the purpose of the original was the same as that of the copy. The best analogy for what has taken place here will be found in a parchment document, inscribed in hieratic, now in Berlin<sup>3</sup>: this records certain buildings

<sup>1</sup> *Journal asiatique*, eleventh series, vol. i (1913), p. 542.

<sup>2</sup> *Op. cit.* p. 540.

<sup>3</sup> So in the Annals of Tuthmosis III, see BREASTED, *Ancient Records*, vol. II, §§ 420-1.

<sup>4</sup> See BREASTED, *Ancient Records*, vol. I, §§ 498-506.

made by Senwosret I at Heliopolis and is a copy made at the time of the Eighteenth Dynasty; the intrinsic interest, apart from the language, makes it impossible to regard this as a romance, and there is, accordingly, reasonable ground for supposing that the original was an authentic commemorative stele. For a similar reason we must reject M. MASPERO's view that the Carnarvon Tablet contains the beginning of a semi-historical tale; Egyptian tales, as we know them, deal with subjects far more fantastic than mere descriptions of warlike operations.

There appears, therefore, to be no reason why we should not give just as much credence to the narrative of the Carnarvon Tablet as to any other official Egyptian commemorative stele. No doubt this kind of historical source is not all that could be desired, but since we can neither contradict nor qualify its statements we must make shift with them as best we may. In point of fact, the information that we obtain from the Carnarvon Tablet agrees very well with our previous views on the Hyksos period. In the romance of the *Sallier* papyrus Sequentia' is a mere or less obedient vassal of the Hyksos ruler Apophis. Kamöse was probably the immediate predecessor of Amosis I, since both are associated together in the famous find of jewellery and on an inscription at Toshkeh in Lower Nubia'. From the tomb of Ahmose at El Kab we learn that Amosis I drove the Hyksos out of Avaris and subsequently defeated them, after a long siege, at Sharuhem in Judah. The movement of which this defeat signalized the triumphant ending may have been the direct and unbroken continuation of the more modest campaign undertaken by Kamöse. The utmost limit of Kamöse's ambition seems to have been the re-capture of Memphis (l. 4); whether it was he or Amosis to whom that honour fell is not yet known to us.

Professor NEWBERRY has discussed the name of the conquered foe and the geography of the tablet with his usual acumen and historical insight<sup>2</sup>. Teti he shows to have been a familiar name in the Seventeenth and early Eighteenth Dynasties, and Piopi to be merely a variant form of Apopi, Apophis. Thus Teti, son of Piopi, may have been the son of one of the Hyksos rulers called Apophis, probably the last of them. Professor NEWBERRY notes that the prominence of Cusae in the narrative of the tablet agrees with the statements of the inscription set up by Hatshepsut at Speos Artemidos. There the famous queen describes her restoration of various temples ruined at the time when the Asiatics were in the land, and the temple of Cusae is the southernmost that she mentions. Later, in the Eighteenth Dynasty, the province known as  $\frac{2}{1} \frac{1}{2}$  or Southern Egypt appears to have had its northern boundary a little above Cusae, and it may have been for this reason that the Hyksos deliberately placed their boundary there. It is true that a lintel of an Apophis and a block of Khian have been found at Gebelen, some distance south of Thebes; but it is far from certain that the Hyksos domination ever actually extended as far as there.

Not the least interesting point about the Carnarvon Tablet is its allusion to a powerful prince in Kush, who claimed equality with the Theban Pharaoh. This reference is confirmed by the biography of Ahmose of El Kab, whence we learn that the defeat of the Hyksos at Sharuhem was immediately followed by a Nubian campaign, where "His Majesty made a great slaughter" and Ahmose earned for the second time the reward of gold given to doughty warriors.

<sup>1</sup> WENIT, *Les Hyksos*, pp. 150-2.

<sup>2</sup> Proc. S. B. A., vol. 35 (1913), pp. 117-122.

## MEROITIC STUDIES

BY F. L. GRIFFITH

(Continued from p. 30)

### II. PROGRESS OF DECIPHERMENT.

I now take the opportunity afforded by the *Journal* to lay before its readers a review of progress in the subject since 1912, when the commission given to me by the Fund to collect and publish Meroitic inscriptions was finally discharged. The materials published down to that moment were all included, discussed and indexed in the following volumes, to which constant reference is made in these Studies either by pages or by the numbered inscriptions in each memoir:—

*Meroë 1909–1910*, by Garstang, Sayce and Griffith. Oxford 1911 (*Mer.*).

*Karanāg, the Meroitic inscriptions of Shabtūl and Karanāg* (with three introductory chapters on the Meroitic writing and language) by Griffith. Philadelphia 1911 (*Kar.* and *Sh.*).

*Meroitic Inscriptions* by Griffith (E.E.F. Memoirs of the Archaeological Survey), Part I, London 1911; Part II, 1912 (*Inscr.*).

A review of these three memoirs by the comparative philologist Schuchardt of Graz<sup>1</sup> contains especially valuable remarks on the verbal(?) prefixes shown in the benedictions of the funerary texts.

The fifth volume of text of Lepsius' *Denkmäler* (L. D. v. Text), prepared by Wreszinski from the note-books of the expedition in Nubia, gives valuable information about the finding of Meroitic inscriptions and occasional corrections or variations of copy.

Further material has been published as follows:—

(1) A slab engraved with a hymn (?) TURAEFF, *Nieskolko Egipetskikh nadpisей* in the *Zapiski* of the Imperial Russian Archaeological Society, Tome VII, 1912.

(2) An inscription of Akinizaz at Dakka, already noted as *Inscr.* 93 but reserved for Dr Roeder's publication of the temple, is now given in his *Tempel von Dakke*, II, pls. 16, 23.

(3) A stela set up by Akinizaz in a small temple at Meroë found by Garstang in 1914 and published with index of words by Phythian-Adams and brief comment by Sayce in the *Liverpool Annals of Archaeology*, vol. VII. It is the longest Meroitic text yet known and is practically complete.

I have also in my hands for publication over forty funerary inscriptions from Faras and a number of ostraca from Faras and Bohon. Among Prof. Garstang's inscriptions are considerable fragments of a four-sided stela or obelisk found by him in 1911, of which Prof. Sayce has most kindly communicated to me his copy. Numerals extracted from these unpublished texts were quoted in the previous instalment of *Studies*.

The most convenient method of registering the advances made will be to follow the account of the writing and language given in the Introduction to the *Karamdy* memoir, supplementing each section in order. The first objects aimed at there were to distinguish clearly the different letters of the hieroglyphic and cursive<sup>1</sup> alphabets, fix the correspondence of the hieroglyphic and the cursive forms, and ascertain the sound which each letter represented. The resulting table of the alphabet was printed for reference at the beginning of each volume in the K.E.F. memoir on *Meroitic Inscriptions* and is here reproduced.

		initial aleph or a				v
		e				l
		i				h (kh) <sup>2</sup>
		i				h (kh)
		y				s
		w				ð
		b				k
		p				q
		m				t
		n				te
		ð				ð
						z

Also ; : stop to separate words.

It may be remarked that some of the items noted in the following pages have been already stated, mostly in *Meroitic Inscriptions*, Part II, while others have come to light since.

*Kar.* pp. 3—4. We can see definitely in Meroitic writing, besides (1) the signs of the alphabet and (2) the group of dots commonly used as a divider of words—which alone constitute the bulk of the inscriptions—some other rarer classes of signs, namely

<sup>1</sup> For convenience I have reverted to the term 'cursive' instead of 'demotic' which was used in *Karamdy* for the non-pictorial form of the writing, thus confining 'demotic' to its usual employment for the latest forms of cursive Egyptian.

<sup>2</sup> Altered to *sh* in these *Studies*.

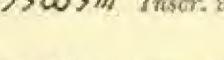
(3) purely numerical signs<sup>1</sup>, (4) metrical signs<sup>2</sup>, (5) a few doubtful symbols such as  in the hieroglyphic texts<sup>3</sup>, and those like an arrowhead and a brush which are found in accounts on ostraca<sup>4</sup>. These last are probably ideographic.

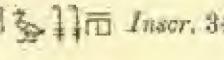
*Kar.* pp. 4—5. For the equivalence of the hieroglyphic alphabet with the cursive several further equations are available, but are only confirmatory of the results already achieved without supplying direct proof that  $\nu = \text{---}$  or  $\sigma = \text{---}$ . (These equivalences however are certain on other grounds.)

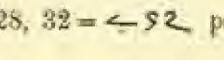
10. The royal name Akinizaz  *Meroe* 2 =  $\nu \nu \nu \nu \nu \nu \nu \nu$  *Inscr.* 93, St. of Akin. II. 1, 26.

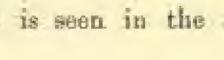
11. The divine name Makezke  on the columns of Naga and Amara. *Inscr.* 34, 84 =  $\sigma \sigma / \nu \nu \nu \nu$  *Meroe* 13/3 *Inscr.* 94/6. The third vowel here shows curious variations.

12. The divine name Aqezis for Chons  *Inscr.* 9, 23, 36, 38 =  $[J] \nu \nu \nu \nu \nu \nu \nu$  *Inscr.* 128a/2  $\nu \nu \nu \nu \nu \nu \nu$  (*A*)qezit, genitive of (*A*)qezis<sup>5</sup>, *Kar.* 30/4.

13. The geographical (?) term  *Inscr.* 28, 32 =  $\nu \nu \nu \nu \nu \nu \nu \nu$  *Inscr.* 94/30; and  *Inscr.* 84 =  $\nu \nu \nu \nu \nu \nu \nu \nu$  *Inscr.* 94/2 yireqe, yirege "south(?)"; see *Inscr.* II p. 12.

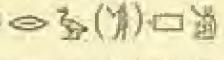
14. The geographical (?) term  *Inscr.* 34, 84 =  $\nu \nu \nu \nu \nu \nu \nu \nu$  *Inscr.* 75/3, 10 tenkel "west(?)".

15. The word  *Inscr.* 26, 28, 32 =  $\nu \nu \nu \nu$  passim, *at* "water," see *Inscr.* II p. 38.

16. The word  *Inscr.* 1 is seen in the man's name  $(\nu \nu \nu \nu) \nu \nu \nu \nu$  Shab. 2/5.

Most of the few hieroglyphic groups that are known, including even those which represent proper names, have now at least partial equivalents in the abundant cursive texts. Nothing has been found to shake the equivalences attained in *Karanib*.

*Kar.* pp. 8—10. New equations (with Egyptian hieroglyphic and demotic and with Greek) to prove the phonetic values of the signs are plentiful. First of all we can add to the equation (u) for the name of Rome another spelling  $\nu \nu \nu \nu \nu \nu$  Arame from the early stela of Akinizaz, II. 3—5.

(w) The royal name  *Meroe* 15, *Inscr.* 5, 17 =  Pyr. A 16 at Meroe, *Inscr.* I p. 78, with the common omission of *n*.

<sup>1</sup> Above pp. 22—24 and Pl. VI.

<sup>2</sup> The groups of dots above pp. 22—23, Pl. VI lower edge right-hand end.

<sup>3</sup> See references in *Inscr.* II p. 74.

<sup>4</sup> Pl. VI at the extreme right-hand end of the bottom rows.

<sup>5</sup> Cf. *Kar.* p. 23 (4) and p. 24 for the form; *Aqezit* is for *Aqezis+is+it*.

(x) Inscr. 77, 78 = Pyr. A. 16 at Meroe Inscr.

1 p. 78. At Naga the Meroitic gives Inscr. 17, 20, with an extraordinary variation of  $\Delta$  *q* for  $\Sigma$  *k*. I suspect that *pqr-tr* "great paqar" is the real meaning.

(y) The name Kar. 89/7 = Pyr. B. 10 at Meroe, Inscr. 1 p. 87.

(z) Kar. 51, 52 probably = *Aβpatoeis ψενης* L. D. vi, Gr. 317, Inscr. II p. 47.

(aa) The man's name Kar. 11 probably = first part of the royal name at Dakka, Inscr. II p. 32.

(bb) The man's name Far. 4/9 probably = dem. *Atnbit(rye)*, L. D. vi, dem. 15, Inscr. II p. 46.

(cc) The man's name Inscr. 88/1 probably = dem. *Ssn'*, L. D. vi, dem. 20.

(dd) The man's name Inscr. 133/5 = dem. *Supte* at Dakka, L. D. vi, dem. 156/2, Inscr. II p. 25.

(ee) The man's name Inscr. 89 = dem. *Wygy, Wyngy*, above p. 27.

(ff) The place-name Inscr. 94/27, 31 = *Tεληλις* Inscr. II p. 30.

(gg) The woman's name Inscr. 89/1 = dem. *T-špsi Τσεψις*, above p. 27.

(hh) The man's name Inscr. 89/5, Far. 44/3 = dem. *P-km Παχουρις*, Coptic *naqam*, *naqm*, above p. 27.

(ii) The man's name Inscr. 89/6 = dem. *Bk, (II)Bηχης*, Coptic *fan*, above p. 27.

(jj) The woman's name Kar. 84, Inscr. 135 = dem. *T-bkt* (pron. *T-beki*) "the female hawk" *Tσηκης*.

(kk) The man's name Inscr. 88/2 and the woman's Inscr. 88/1, 135/4 = dem. *Pa'-St, Ta'-St* (pron. *Paesi, Taesi*) *Παησις, Θαησις*.

(ll) The divine name Inscr. 49 ad fin. = nci *Iσις*.

(mm) The place-name in the expression *W&:Tew:webitebt*: "Isis in the Pure Mountain," Inscr. 75/9<sup>1</sup> = Eg. *Dw-w'b* "The Pure (or Holy) Mountain."

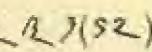
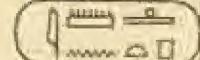
(nn) The title Inscr. 89/11 = dem. *p-mr-šn* (pron. *p-le-shon*), *λεωντης*, above p. 28, cf. SPIEGELBERG, *Rec. de Trav.* xxiv 187.

(oo) The title Kar. 92/3 = dem. *'rbt(n)gys*, above p. 23.

<sup>1</sup> This was read *Psam*, Inscr. II p. 46, following Brugsch.

<sup>2</sup> Cf. SPIEGELBERG, *Mumienstibetos*, p. 52<sup>2</sup>.

<sup>3</sup> This statue of Isis nursing Horus is shown by L. D. *Text v. 271* to have been found not at Merawi but in the Great Temple at Jebel Barkal, which hill was called the Pure (or Holy) Mountain in Egyptian, BATASCH, *Dict. Geogr.* 109.

(pp) The divine name  *Kar.* p. 55 and passim, St. Akīn. II. 19, 20, 30 =  dem. 'Ma-htp, Αμενοθης, Αμενωφης, seen in Coptic (II)Αμηνωφητη. The Meroitic has dropped the *t* before *p*<sup>1</sup>.

*Kar.* pp. 10, 11. For ascertaining the sounds likely to be represented in Meroitic, the names of earlier "Ethiopians," yielding the list of nineteen sounds on p. 10, are of much less importance than the Nubian names of the Meroitic period written in Egyptian hieroglyphic and demotic. The brief note of the components of these on p. 11 needs expansion.

I. Meroitic names and titles written in Egyptian hieroglyphs. These fall into three series marked by differences of spelling—

(a) the early royal names *Eryapemys* and *Ashlamani*, spelt in good Egyptian style on the temples which they built in the northern border-land called the Dodecaschoenus.

(β) royal names, etc., including *Eryapemys* from Meroe and other sites in the south, generally in very corrupt spelling.

(γ) the personal names  *Wyky* Wayekiye and  *Qrny* Qereñi in a very late hieroglyphic graffito at Dakka.

Most of the groups can be found in the Index on pp. 75-6 of *Inscr.* II; the *Text* of Lepsius' *Denkmäler* gives some confirmations of or variation from other copies. It should be noted that the Meroitic name-element *Mqēl*, *Meqēl*, *Inscr.* 88/3, 89/4 (*Mqēl*-temeye and *Mqēl*-temze, cf. above pp. 25-27), *Kar.* 110 (*Tigello*) *Sh.* 9 *M[e]qeluli* (?) appears to be recognisable in the cartouches  *Amani-meqell-bz* (?) LEPS. *Königsbuch* no. 942, L. D. *Text* v. 335 and  *Meqel-ik* L. D. v. 39 (ending  ib. 36) cf. L. D. *Text* v. 303.

Apart from the groups for Egyptian elements like , the following letters are employed in spelling these names:

 generally initial as in *Eryapemys*; final in *Brtre* above (y) and in the other cartouches of Pyr. B. 10 at Meroe.

 final (= e?) in *Kardaxη*, etc.; later (γ) = y in *Wyky* (Wayekiye), *Qrny* (Qereñi).

 see  (γ) and  (β).

 in *Mry-Amn-asrw* and *Amani-asrw* (?); NB. later (γ)  = Wa in Wayekiye.

 in *Brtre* above (y).

 in *Pkrtr* above (x).

<sup>1</sup> To equate Amanup with the god Amenopi, Amenapi, Apriesphi, Eg.    (cf. BLACKMAN above p. 33 and references there), dem. 'Ma-htp' is less satisfactory; and Prof. Sayce evidently prefers the above interpretation of the name, *Liverpool Annals of Archaeology*, VII. 24. The king Amenhotp II was widely worshipped in Nubia.

-  in *Psmry Inscr.* I p. 87;  (?) in *Mql-tk.*  
 in *Kardakη*, etc.  
 in Qêreñ (?) *Inscr.* II p. 76 (?) p. 87; later (γ)  in Qêreñ.  
 in Amani-têrē, *Eryapervys* (a), etc.;  in *Eryapervys* (Meroe), *Ariknhrér Inscr.* I p. 78, Qêreñ (γ).  
 in *Ariknhrér*;  in ...]th-Amani *Inscr.* I p. 78.  
 in *Azhl-Amni Inscr.* II p. 32.  
   
 doubtful in *Inscr.* I p. 85, cf. *L. D. Text* v p. 319 where  is given instead of   
  in *Kardakη*;   in *Ntk-Amani*; later  in *Wyky*.  
 in *Eryapervys* (a);   in *Eryapervys* (Meroe) and *Mql-tk* [in Egyptian  occurs for   frequently in *Qsrys* at Kalabshe as was noted by Lepsius, *L. D. Text* v 25, cf. GAUTHIER, *Kalabsha*, Pls. II—LX.  may be written by the Meroites on account of the form of  ];  in Qêreñ *Inscr.* II p. 76;  in Qêreñ (γ).  
 in *Bitrē*;  in Amanitêrē, etc.;   in *Kardakη*;  in Amanitêrē *Inscr.* I p. 79.  
 in *Azhl-Amni*;  in *Knrz* (?) *Inscr.* I p. 86.

II. Non-Egyptian names and titles written in very late demotic graffiti in the temples of the Dodecaschoenus. Indexed likewise in *Inscr.* II pp. 75–6. Here we find

- ' in 'krre, 'rbt(n)gye, etc.
- y in *Wygy* above (ee).
- w in *Wygy*.
- b in 'rbt(n)gye.
- p in *Snpte Inscr.* II p. 25.
- m in *Bkmty Inscr.* II p. 38.
- n in *Snpte*.
- ng in Qêreñ.
- r in Qêreñ.
- l in *Abl...*, *Slwa*.
- s in *Slwa*, *Snpte*.
- ś (?) in *Śltu Inscr.* II 25, which might however be read *Miltu*, see the facsimile *L. D. vi Bl. 66 no. 154.*
- k, g in 'krre, *Bkmty*, 'rbtgye, *Wygy*.
- q in *qrny*, *Qsrys* BRUGSCH, *Thes.* 1003.
- t in 'rbtgye.

These two lists agree well enough with the results previously obtained as to the composition of the Meroitic alphabet, although neither is complete for every sound in the latter. The most notable fact is that ś in both the demotic list and the hieroglyphic is doubtful, as this has a bearing on a subsequent discussion. Also it must be observed that amongst the names in the Pyramids of Meroe there is



*Inscr.* i p. 76, L. D. *Text* v. p. 303; unless there is a mistake in

the copy we have here the letter *h* which sound is not otherwise traceable in Meroitic. It seems as if the name were non-Meroitic and must be either old or else a survival into Meroitic times from the older state language and Ethiopian dynasty of Taharqa. I have therefore not utilised it for the above alphabet.

The only consonantal sign in the Meroitic alphabet for which no equation could be found to prove its value was , *z*. The others, however, having been sufficiently settled, it seemed by their elimination that *z* must be the equivalent of Eg. or , and there were some arguments besides for making it a dental (*Kar.* p. 16). The value *z* was therefore assigned to it, a sound which is also a prominent element in the Eg. word *wz'-t*, the name of the sacred eye . Its equivalence with is now further indicated by the probable equation (*aa*) and it seems impossible to doubt its correctness. The transliteration *z* is of course only an approximation for a sound more like the Coptic *z*, *s*, i.e. *g* (dj), *c* (tch).

As to the other consonants the most important new equations are perhaps (*aa*) (*hh*) for = *h*, confirming this value for it, whereas is *b*.

The value of each consonantal sign in Meroitic is now well established within close limits, although there is still room for discussion as to precise values and the most suitable transliterations.

All the new material confirms the observation that may be followed in writing by or by , though not by , whereas (which commonly varies with ) is never followed by a vowel sign. The natural conclusion is that = followed by , and I do not see any cogent objection to this on other grounds.

It will be seen from the equations (i) (j) (m) (n) (cc) (dd) (gg) (kk) (ll) (nn) that (*s*) and (*z*) are hopelessly intermingled in the uses of (which is derived from an Egyptian character for *s*) and (derived from an Egyptian *z*); and varies with especially in *ψερτης*. While is never followed by a vowel sign, is commonly followed by and , but by apparently only in three cases amongst my inscriptions:—In *Kar.* 84 the *s* seems fairly certain, and in the great stela of Akinizaz apparently we have in l. 7 and in l. 11; whereas in *Kar.* 131 we should read instead of , and in *Inscr.* 92/17 for probably or .

There is no clear case of *s* occurring in Egyptian transcripts of Meroitic names in either hieroglyphic or demotic. It would therefore seem probable that Meroitic made no distinction between *s* and *z*, at least in writing, and that = followed by .

The two equations in (kk) are of great interest. In the first place they show how the Egyptian form of the name of *Iers* *ace*, *aci* was rendered in Meroitic writing, and so confirm the exceptional use of the Egyptian name (rendered *Ashi*) as shown in (ll); otherwise one would suspect the latter of being merely an error of the scribe in this rather faulty text (*Inscr.* i p. 73), since the customary form *Weshi* occurs in the parallel phrase at the beginning of the inscription. In the second place the equations in (kk) show the treatment of the hiatus in *Pa-ési*, *Ta-ési*. That vowel should follow

vowel was a thing not endurable in Meroitic; the difficulty was got over by the insertion of *y*.

*The vowels.* The notation of vowels in Meroitic, especially of the *o—a* vowel group, and the actual values of the vowel signs are questions which still bristle with difficulties. Egyptian hieroglyphic and demotic equations, being consonantal, give no help in themselves, but only through Coptic equivalents or Greek transcriptions. Again, the vowels in Coptic varied according to dialect; no one can say precisely how the Egyptians in the Syene district and the Dodecaschoenus pronounced their vowels in the first four centuries A.D. Greek transcriptions too are more or less vague. Even after allowing for the imperfection of the evidence, the uses of the vowel signs in Meroitic seem curiously elusive and capricious. Perhaps the difficulties lie partly in the mixture of evidence from different ages.

The vowel signs are fully discussed in *Kar.* pp. 12, 13, q.v. One only, ፩, /, is solely vocalic, the other three partake of a consonantal character.

፩, ፻ apparently derived from Eg. ፩ ፻. It is only used for the initial vowel and can be omitted at pleasure. It may be looked upon like initial aleph ፩ as a kind of consonant, a breathing followed by a vowel.

፪, ፻ derived from Eg. ፩, which serves both for aleph and for *y*. In early writing ፩ ፻ stands often for ፻// and is then consonantal or syllabic; but usually it is only a vowel.

#### Syllabics with the terminal vowel ፻:

- (1) ፩, ፻ with *y*.
- (2) Apparently ፩, ፻ with *n*.
- (3) Apparently ፩, ፻// with *s*.
- (4) ፩, ፻ with *t*, the sign derived from the group ፩ ፩ *t+h* or perhaps more probably from ፩ Eg. *ty*, ταὶ

፩, / derived from Eg. ፩ 'h ἥρ "ox"; or perhaps from ፩, an Ethiopian substitute for ፩ *hr* go "face." It occurs only as a vowel.

#### Syllabic with the terminal vowel /: ፩, / with *t*.

፩, / derived from Eg. ፩ in "hot!" In early writing ፩, / stands often for ፩// and is then syllabic; but usually it is only a vowel.

#### Syllabic with the terminal vowel ፩: ፩, ፩ with *y*.

The syllabic uses of ፻ and ፩ survive sporadically in later writing.

Amongst the equations (*a—ll*) are many which can be utilised as evidence for the vocalisation of Meroitic:

፩ ፩ ፩ (፩), ፩ ፩ ፩ (፻), equation (e). One of the first rays of light that was obtained was furnished by the name of Ammen. Here Coptic gives αμοθη, traditional Greek Αμμων, Ptolemaic papyri in compound names -αμουνη. By a rare chance, however, the Greek version of a Meroitic name containing it, viz. Εργ-αμενη, has been preserved by Diodorus; most fortunately too a similar form is found for the Ethiopian time in the records of Assurbanipal, where the name of the Ethiopian king

Urd-amānē can be contrasted with that of an Egyptian princeeling Un-amūnu. It was the Pharaohs of the New Kingdom that introduced Ammon into Nubia and established his worship in temples throughout the country from Debot to Napata, and it is easy to trace the origin of the Ethiopian form in the New Kingdom pronunciation which is rendered Amānu, Amāna in the cuneiform of the Amarna tablets<sup>1</sup>. The Meroitic-Greek -ἀμάνη and the Ethiopian-Assyrian -amānē indicate for ՚-𠁻(𠁻) the pronunciation Amānē or Amānē.

It appears then that corresponding to ḥ or ī in Egyptian we may expect ḥ in Meroitic. This explains (f) ՚-𠁻 Ar for Egyptian ḥ-p-p Hōr. In Amarna and Boghaz-keui cuneiform Horus is ḥāra<sup>2</sup>, so that the case is entirely consistent with Amānē.

(e) For Eg. ՚-p-ə-p, Atar is accordingly to be expected. We have actually ՚-𠁻:𠁻, where we are at liberty to supply (𠁻) before the 𠁻, giving At-ar ՚.

(e)(s) The second ḥ in Amānē is not written. Unwritten n appears to be common and is conspicuous in ՚-𠁻 Nptš nanata, ՚-𠁻 Ktkš Karδax̄. As to the last, n is frequently omitted in Meroitic.

(g) Ἀρενδωτής Eg. Harentyōt, Harentyaf is ՚-՚-՚-՚-՚. The group of consonants nty was no doubt slurred in the Egyptian. & varies with o in Coptic dialectically, and the o was certainly short in this word.

(h) The name of the queen of Amenhatp III is rendered Teie, i.e. Teye, in the Amarna tablets. The name of the city dedicated to her in Nubia was therefore pronounced Ha-Teye and appears in Meroitic as ՚-՚-՚-՚ At-՚-yš.

Transcripts by Meroitic scribes in the third century A.D. of Egyptian names borne by their familiar contemporaries ought to furnish particularly reliable guides to the values of the vowel signs, especially as Coptic equivalents and Greek versions give a very good idea of what the vocalisation of the names must have been at that time.

(gg) (T-)shapshi (in Old Coptic A.Z. XXXVIII 92 infra) or (T-)shepshe, Mer. ՚-՚-՚-՚-՚.

(hh) Pakhōm Mer. Ph/mš and perhaps PhSmš.

(ii) (P-)Bēk Mer. Bskš.

(jj) T-beko (T) Mer. Tšb՚-k՚.

(kk) Pa-Ēse, Ta-Ēse Mer. Pyšš՚-՚, Tyšš՚-՚.

With these may be associated the transcript of the following Egyptian word:

(i) t-washte or t-weshite Mer. tšw՚-՚-՚(՚)t՚.

As to ՚ (i) in the first syllable of the words the feminine article ՚- which in Coptic has only the faintest vocalisation is rendered by t՚ in (jj) and (i). In the only other case (gg) the ՚ is suppressed before š. It is unfortunate that the masculine article n- is suppressed in (ii) and followed by a full vowel in (hh), so that we cannot quote an example with it.

(2) Similarly in the middle of the words the unvocalised n of (gg) and yš of (i) are both written with ՚.

<sup>1</sup> See RANKE, *Keilschriftliches Material zur Altägyptischen Vokalisation* (Berl. Abb. 1910).

<sup>2</sup> RANKE, op. cit. p. 10.

(3) At the end of the words the unvocalised  $\alpha$  of (*hh*) and  $\sigma k$  of (*ii*) are written with  $\varsigma$ .

It seems then that  $\varsigma$  is added to a consonant to mark the absence of vocalisation. But

(4) There are important exceptions. In (*ii*) (*kk*) it represents the long vowel  $\epsilon$ . In one instance in (*hh*) it may represent  $\delta$ , but it appears to have been corrected on the original to  $\beta$ .

$\beta$  stands for  $\delta$  in (*hh*).

$\epsilon$  stands for the short  $\epsilon$  or  $\imath$  of the Egyptian feminine termination (*gg*), (*j*) (*kk*), (*i*); also for short  $\epsilon$  in the accented syllable (*jj*) and for short  $a$  or  $e$  in the accented syllable (*gg*) (*i*).

Lastly, the vowel  $\alpha$  in the unaccented syllable is denoted by leaving the preceding consonant bare (*hh*) (*kk*).

The above seem to be the rules applicable to the transcription by Meroitic scribes in Lower Nubia of foreign names in the third century A.D. One Greek transcript of a Meroitic name is known from about the same period:

(z) ΑΒρατογ Mer. *Brt/gs* which according to the above rules would give the pronunciation Baratoy, assuming that  $\beta$  can represent  $\delta$  (as indicated by the Greek) as well as  $\delta$ . The spelling of the name of this important person, who occurs also at Faras, does not vary; but one may suppose either that  $\varsigma\alpha$  properly preceded the name but was omitted in writing it, or better that Abra-, Bara- were alternative pronunciations, especially when a foreigner was concerned.

We must be cautious, however, in applying the rules to early Meroitic writing or to ordinary Meroitic groups where traditional spelling from early days would more or less hold sway. Changes in the pronunciation of the language or the predominance of a different dialect might affect the spelling, and the scribal conventions would almost certainly show some change in the course of two or three centuries.

For traditional and early spelling we have first:

(z) The late Greek transcript of the ancient title held by Abratoy, viz.  $\psi\epsilon\tau\eta\varsigma$ , Mer. *pSsStt*, *pSst*, rarely *pst* (*Kar.*); ancient *pSst*, *pSt*, *pSst\epsilon* (*St. Akinizz*), *pSst* (*Far. 43*). The transcript ought to show at least how the title sounded in the days of Abratoy. The predominant spellings *pSst*, *pSsStt* ought to give *psatō*, *psēto* according to the above rules, but the omission of *n* is a constant phenomenon in Meroitic writing. The terminal vowel is therefore the only serious difficulty. Curiously enough the ancient spelling *pSst\epsilon*, occurring only in one instance on the stela of Akinizaz (l. 28), would actually give *psa(n)te*, an excellent equivalent of the Greek.

Also first-century Greek literary transcripts of an ancient Meroitic king's name, the queen's title and the name of one of the capitals:—

(c) (Εργ)αμην Mer. *Mn\epsilon*, *Amn\epsilon*. The Greek version unfortunately makes a normal Greek proper name and therefore may be suspected of adaptation, but it is well confirmed by the Ethiopic-Assyrian *Amanē*, see above. On the analogy of Abratoy one might conjecture that the spellings *Mn\epsilon*, *Amn\epsilon* indicated two pronunciations, *Mane* and *Amne*; but, as in Egyptian the long vowel and stress preceded the *n*, it is better for the present to vocalise the word as *Amane*.

(r) *Karbaṣy* Mer. *Kthṣ*.

(s) *Natata* Mer. *Nptṣ*.

In these the *s* seems to represent a final vowel, short or long.

The vocalisation of other groups can be compared with Egyptian spellings:—

(d) *W/š* archaic, etc., rarely *Wt-š* late. Eg. *Ēse*. Probably *Wls*, *Wia*.

(e) *Aš/r-š* archaic, etc. Eg. *Usiri* (or *e*). Probably *Aslri*.

(f) *Ar* late writing. Eg. *Hör*, but *Ar* is likely in Meroitic; see p. 119.

(g) *Pt-šqṣ*; rarer *Pt-łqṣ*. Eg. *wāṣ*. The name has not yet been found earlier than about the third century A.D. in Meroitic, and the spelling seems to agree with this, giving *Piləq*, *Pilaq*.

(h) *At-tyṣ* late writing. Eg. *Ha-Teye*. Probably *Atey(e?)*, modern *Adai*.

(j) *pšlm/š* late writing. Eg. *plemečka*. Probably *plamēs*.

(k) *pšr-tyṣ* late writing. Eg. *prit (?)*. Probably *prit*.

(m) *Phreṣ?* late writing. Eg. *naχwāṣ*, but once *naχwāṣ* if Krall's copy is correct<sup>1</sup>. Probably *Palaras*, Arabic probably *Bakharūs*<sup>2</sup>.

(n) *Syṣ*, *š-tyṣ* late writing. Eg. *Šab*. Probably *Say(e?)*, modern *Sai*, see (h).

(q) *Arštts* late writing. Eg. *Harentyotf*. Probably *Arentat*.

(u) *Arm-š*, *Armṣ (?)* archaic, *Ar/mṣ* late writing. Eg. *Hrōme*, *Paωη*. Probably *Arāmi*, late *Arōme*. Cf. early *Mkṣrkṣ*, late *Mkṣrkṣ* p. 113.

(v) *At(š-?)* archaic (?). Eg. *Hat-hör*. Probably *Atar*.

(ff) *Ss(?)lsis* late. Greek *Tεληλίς*. Probably *Sellēl* (cf. *Shebbâl*).

(ll) *Aš-š* archaic. Eg. *Ēse*, *Ēsi*. Probably *Ēsi*.

(nn) *plšn* late writing. Eg. *plēshone*. Perhaps *palasān*.

It seems impossible to make any consistent scheme for the vowels. If the vocalisation of a word is known some kind of explanation of the reasons for the use of the vowel signs in writing it can be given, but it is impossible to judge how a word was vocalised from the evidence of the Meroitic writing alone.

The value *ɛ* assigned to / is supported by (j) *ʒʃʃs* πλεμηγε and (z) *ʒʃʃs* φεντης; but there is cogent evidence also for an *o*, *u* value.

(u) *ʃʃ/ʃʃz* seems to correspond to *upati* in Amarna cuneiform.

*ʃʃ/ʃʃz* Πρωη.

(z) *ʒʒ-ʒʒ* Αβραοεις.

(hh) *ʒʒ/ʒʒ* Παχουρη, Παζωη.

Also the common termination *ω/ω* or the word *ω/ωž* is probably seen in the proper name *Πλωχ-καρουρ*, perhaps also in *Πετεσητ-κρουρ* at Dakka<sup>3</sup>, though this last is susceptible of another interpretation as Petesesis son of Krūr (i.e. 'Frog').

Moreover, the sign *—*, *—* which is / followed by / corresponds in the queen's cartouche (b) to *—* and perhaps *—* in a variant<sup>4</sup>, which last is to 'land' in Coptic.

<sup>1</sup> KRALL, Wiener Zeits. f. d. K. des Morgenlandes xiv, p. 237.

<sup>2</sup> See the memoirs to appear on *Faras*.

<sup>3</sup> Cf. above p. 27.

<sup>4</sup> See *Kar.* p. 6.

Comparative philologists like the late Prof. Sweet have told me that it is almost inconceivable that a language should have existed without the *o—u* vowel<sup>1</sup>.

If / really represents both *o—a* and *e* we can cite from Old Nubian an illustrative mixture of *o* and *e*, for *opece* 'hymn' 'praise' has the variant *opece*, i.e. probably *orše*; and *opu* 'wine' corresponding to Coptic *ηρπ*<sup>2</sup> suggests that *ηλεμηγη* might appear in Meroitic as *pelemdshe*.

With regard to the origin of the value *o* for /, i.e. ፩, we may perhaps seek it in the ፩, ፪ of the Ethiopian-Egyptian inscriptions. Schafer long ago suggested<sup>3</sup> that this ፩ might have been substituted for ፻ the 'face,' which in Coptic would be *go* (*ho*). If so, the Meroites, who could not pronounce *h*, would convert *go* into *o* and so the ox's face or head would naturally represent to them the vowel *o*. Likewise *to* for ፩ can be explained as has been done by Prof. Maspero, who well suggests that ፩, var. ፪, represents ፻, the determinative of 'land' ፻<sup>4</sup>.

There are plenty of cases in which an unwritten vowel corresponds to an *o* or *ö* in Coptic, *Areudōtes*, *gaawp*, *naaxwraac*, etc., but these can generally be explained as due to the substitution of *a* for *o* or *ö* in the Ethiopian-Meroitic names<sup>5</sup>. Also the initial ፩ might represent other vowels than *o*, as when it corresponds to *or* in the Meroitic ፩/፩ for Coptic *orecpe* and to *u* in cuneiform *uputi*.

Until more certainty is arrived at it seems best to keep to the transcriptions both of vowel-signs and of ፩, ፻ which have been used in all the memoirs from Meroe onwards, although they must be looked upon as conventional to some extent.

*Kar.* ch. II p. 17 et seqq. The age of the Meroitic inscriptions.

Professor Sayce's recognition of the name of Rome on the great stela of Akinizaz can hardly be gainsaid; it is then practically certain that Egypt was already under Roman rule. Presumably the Dakka texts of Akinizaz and the graffiti in the same style of writing on the rocks west of Dakka<sup>6</sup> were all engraved before the great defeat of the troops of Candace at the hands of Petronius. This took place in the neighbourhood of Dakka about 23 B.C., less than ten years after the occupation of Egypt by Augustus. The age of these semi-archaic inscriptions, nearly as early in style as any that are known, is therefore practically fixed to the brief period 30—23 B.C. On the great stela a queen was figured in front of the king, doubtless the one-eyed Candace herself. The name or title Candace is not found in the inscription, but it occurs in a cartouche in Egyptian writing on the pyramid of Amanitêrê at Meroe, and follows the name of that queen in her Meroitic cartouche on one pylon of the Lion temple at Naga precisely as *qera* 'king' follows the name of her lord and husband Natakanamani on

<sup>1</sup> See also Schmidlitz's review, *I.c.* p. 167.

<sup>2</sup> See GRIFFITH, *Nubian Texts of the Christian Period*, Glossary p. 110.

<sup>3</sup> *Die äthiopische Königsinschrift*, p. 53.

<sup>4</sup> Cf. *Kar.* p. 16.

<sup>5</sup> See above p. 19. On p. 16 of *Karunig menhe* quoted as a word corresponding to a Meroitic vowelless group is wrong, but unfortunately was allowed to pass in the proof-correcting. The word which I at first read as *Maap menhe*, i.e. Memphis, is really Amanap (*Kar.* p. 55, above p. 115) and no equivalent of Memphis has yet appeared.

<sup>6</sup> *Inscr.* 91—93.

the other pylon'. Candace is therefore, as Pliny implies, a title 'queen'(!) rather than a name. The style of the cursive inscription of Natakanani and Amanitère<sup>1</sup> is much the same as those of Akinizaz.

At the other end of the series, among the latest inscriptions another chronological point has been gained by the probable identification of Wayekye, whose graffiti is dated in A.D. 229, with the man whose tombstone in the late style of Meroitic was found at Aqéba<sup>2</sup>. This would date the tombstone to about 250 A.D. One may fairly doubt whether the Meroitic writings known at present reach beyond the first century B.C. and the third century A.D., the period of Diocletian. Traces of the Meroitic writing, however, seem to survive in two letters of the alphabet of Old Nubian<sup>3</sup>.

*Kar.* ch. III. The Meroitic language.

It must be confessed that, in spite of new material and of some hard work on my part, progress in the understanding of the Meroitic language itself has been nearly at a standstill. Such advance as has been made has been almost entirely on the fringes of the subject.

*Kar.* p. 22. As to Phonology the avoidance of vowel following vowel by the insertion of *y* is seen not only in the spelling Pa-yeshi for *nauci* above pp. 117-8, but also in the vocative of the name of Osiris, viz. (A)shéreyi for (A)shéri + i, *Kar.* p. 23.

*Kar.* p. 23, note 1. It was observed that no Egyptian or Greek personal names had been recognised in the Meroitic inscriptions. We are now however able to point to several Egyptian names of persons, above p. 119.

No Greek or Latin importations have been identified. Arbat(e)=*αρτάθη* (above p. 23) was of course Egyptian *ertab*, *ertob* long before it was Greek.

It has been proposed to identify several Meroitic words—*até* 'water,' *watyeki* 'star,' *qaban* 'star'?; Sothis?; *zemi* (!) 'year'?; *kér* 'book'?—with Nubian<sup>4</sup>. From Schäfer's analyses of Ethiopian names preserved by classical writers there can be no doubt that Nubian was spoken in some part of the Nile valley; borrowing of individual words may therefore have gone on freely between Nubiens (Nobatae?) and Meroites, but so far the language of the Meroitic inscriptions does not appear to have been the ancestor of the Nubian dialect.

The list of five native words of which the meaning is clear, these being of far more importance than any loan words, can now be increased by two, viz.

*�p3 kazi* 'woman,' cf. perhaps Nub. Mah. *kissi*, Dong. *fassu*, pudendum mullebre.

*�p52 abr* Stela of Akinizaz, *Inscr.* 92/6, 12, *�pV Inscr.* 94/14, 20, 28, 29 *abr* 'man.'

These valuable additions were pointed out by Professor Sayce in his note on the stela of Akinizaz. It is worth while to give the grounds for the meaning, which can leave no doubt. The stela pictures a row of bound captives below the scene of adoration. In the text occur the two words followed by numerals.

l. 5 *abr* 32, *kzi* 135. l. 10 *abr* 100, *kzi* 1(-)2. l. 12 *abr* 58 (?), *kzi* 223.

<sup>1</sup> *Inscr.* 3, 4, see *Inscr.* 1 p. 55, also *ib.* p. 79.

<sup>3</sup> *Inscr.* 126.

<sup>2</sup> Above pp. 26-8.

<sup>4</sup> *Kar.* pp. 14, 15, *Nubian Texts of the Christian Period*, p. 73.

<sup>5</sup> See above pp. 27, 28, 30.

It had already been shown in *Kar.* p. 39 that *kti* was a characteristic element in the names of women and in their epithets, and it was assumed to mean woman, harim, etc. in translating; *r* on the other hand is a characteristic termination of masculine names. It is thus evident that the figures refer to the number of men and women respectively taken captive on different occasions; the women captives naturally outnumber the men, most of whom would either be killed or escape.

Other words which are fairly certain are

*sw/D qere* 'king.'

*ʒɔr* *at* 'bread.'

*sw>* *hare* 'north,' but this is possibly Egyptian, derived from *hr.t = xáru* in the geographical sense, see BAUERSEN, *Wtb.* 1121.

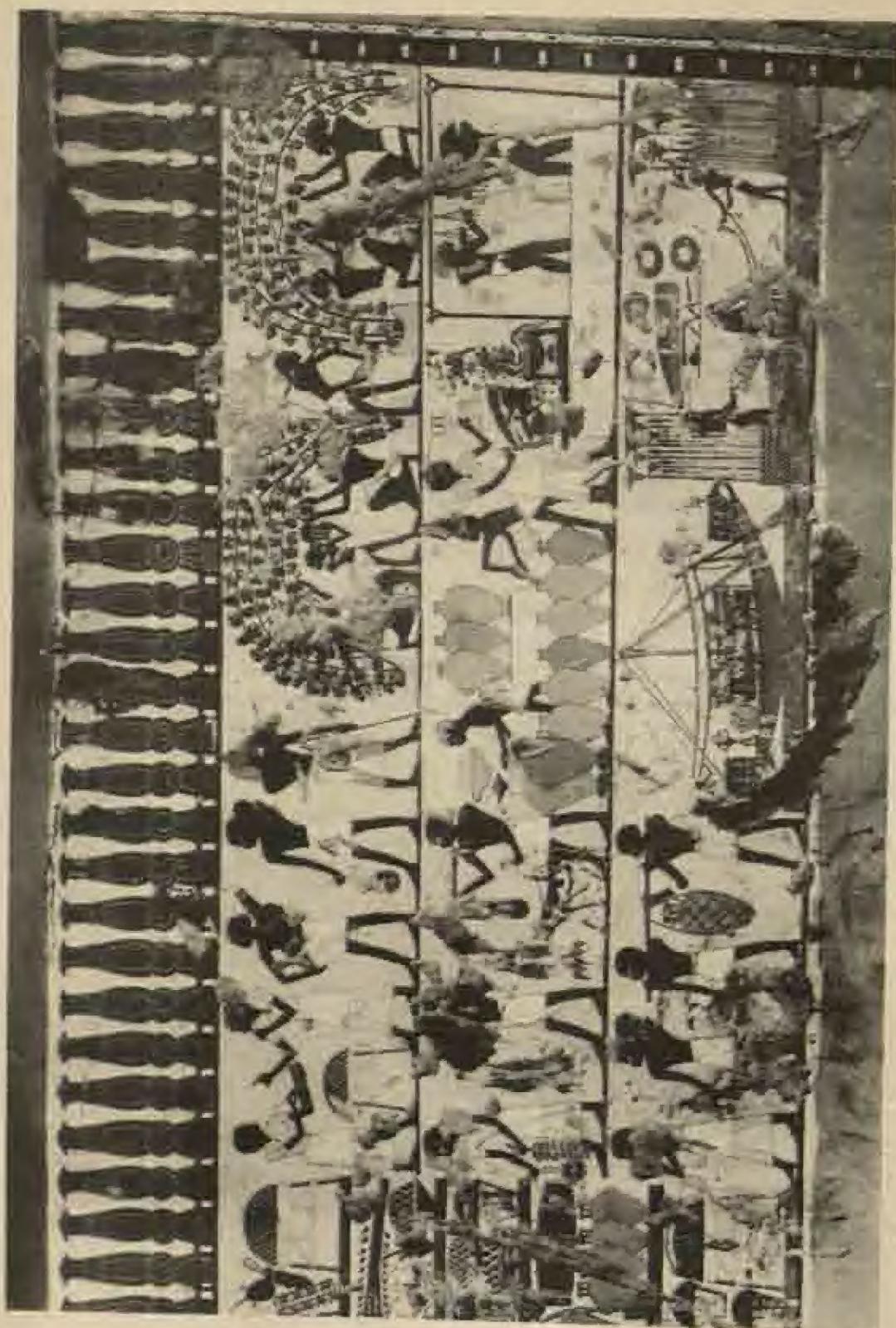
*s/ɔsws// yereqe* 'south.'

*ʒʒəsws// yerewake* 'east.'

*ʒʒəs/ə* *teñuke* 'west.'

It should be noted too that the *t* in the adjective *luk* 'great' 'chief' is probably only connective; like the connective elsewhere it is absorbed by the genitive(?) *s* which then becomes *t*, e.g. *wémanis*, *wémanit-ah*.





WALL FROM TOMB 100, THEBES

## NOTE ON A NEW TOMB (No. 260) AT DRAH ABUL NAGA, THEBES

By ERNEST MACKAY

IN the course of Mr Robert Mond's work at Thebes a hitherto unknown tomb has been discovered at Drah abu'l Naga which presents several points of interest not found in any other tomb in the Necropolis at present known to us.

This tomb is situated a little below and to the south of Tomb 17 (Neb-amun), and was first entered by a native, Mohammed Salim, through a hole in the courtyard of his house. He, however, instead of giving notice of his find, entirely demolished one of the two inscribed walls in an attempt to cut away pieces of it to sell to collectors of antiquities. Fortunately, he was detected and punished by a month's imprisonment, before he had time similarly to destroy the second painted wall. As regards the date of the tomb, the general style suggests the time of Thothmes III, but there is no direct evidence as, unfortunately, the name and titles of the deceased were inscribed on the wall which was destroyed; it will thus probably never be known to whom the tomb belonged.

The scenes of most interest on the now remaining inscribed wall (Pl. XIV) are those showing respectively a small vineyard and a group of rope-makers at work. In the former are seen four vines, or rows of vines, which are being watered by a labourer; the latter is pouring the water into holes or trenches whose sides are raised to prevent its escaping. The more complete of the two kneeling figures under the vine on the left of the picture is painted entirely black and was, therefore, probably intended to represent a Sudanese, though his somewhat aquiline features preclude his being of negroid type. It will be noticed that the two labourers under the vines on the right, and also the man pouring water into the trenches, wear long hair at the back of the head, while the scalp above the forehead is closely shaven. The figure to the extreme right also wears a beard, and it is possible that we have here men of foreign origin who were brought into Egypt, either as skilled gardeners or as slaves who were taught to do this kind of work.

Passing on to the other scene of special interest, three men are here seen at work beside a papyrus swamp making a rope (Pl. XV). The reeds are shown growing in the water and inhabited by birds. The figure on the right of the group of rope-makers is twisting two separate strands of the rope, holding in either hand a tool of the kind used for this purpose. The middle figure, seated on a rush box or stool, should be holding an upright bar of wood or metal between the two strands which

are being twisted together, and one end of this bar should be fixed in the ground. Unfortunately, however, a large part of this figure has been damaged, only enough being left to show that there was something fixed in the ground here. The man behind the seated figure is engaged in giving the final twist to the rope in which the two strands are now entwined together. Above the figures are to be seen four coils of finished rope neatly tied up, and also a bundle of papyrus stems cut ready to be made into rope and bound together in two places. The group of six tools below is especially interesting, and comprises all that was, and to this day is, used by the fellahin in the manufacture of rope. First, there is a species of marline-spike used in splicing and also to put between two strands when they are being twisted together. Below is a mallet used for beating the papyrus stems, after they had been soaked in water, to make them sufficiently pliable to be twisted. Next to these are two tools for twisting the separate strands of rope which are of much the same form as those employed in Egypt at the present day, but with the addition of a heavy ball at the end which assisted with its momentum. To the right of these is another marline-spike somewhat similar to, but smaller than, the first, and lastly a knife which was probably used for cutting down the reeds.

To compare with this scene from the tomb, an illustration is given from a photograph, taken by the writer, of present-day Egyptian fellahin at work making a rope, from which it will be seen that the ancient and the modern methods are almost identical. The fellah in the middle of the picture has a bar of iron stuck vertically in the ground and is using a piece of wood passed horizontally between the two strands that are in process of being twisted together. This additional piece of wood is only used when the rope is thick and not for finer strands which require the vertical bar only.

It will be noticed in the scene from the tomb that the man twisting the strands is doing this with a tool held in each hand. In so doing, he had to whirl his tools in opposite directions, which a personal trial shows to require considerably more skill than is at first apparent.

The modern Egyptians always employ two men for this purpose, as will be seen from the photograph, and when working with short lengths they lay aside their tools and use sticks instead.

At the present day in Egypt the papyrus reed is not procurable, and palm-fibre and what is known as Halfa grass are used instead, the latter of which in favourable localities grows to a height of four to five feet. This grass is made into rope in a green state after having been well beaten with a mallet, and is without doubt the modern substitute for the papyrus reed.

The remaining scenes in the tomb are of the usual type and call for no especial comment, but the two described above well repay the cost and trouble of excavating and guarding the tomb.



SCENE OF ROPE-MAKING, TOMB 260, THEBES



ROPE-MAKING IN MODERN EGYPT



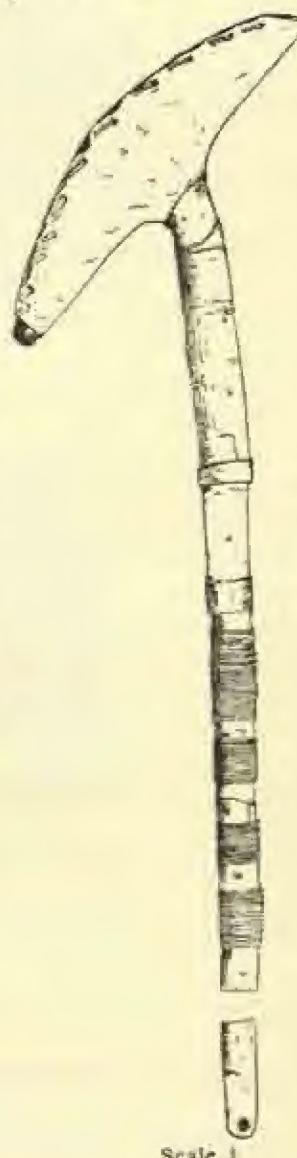
## THE UAS SCEPTRE AS A BEDUIN CAMEL STICK

BY PROFESSOR C. G. SELIGMAN, M.D.

THE specimen shown in the accompanying figure was given me in Cairo a couple of years ago. The owner, on whose good faith I can absolutely rely, said that it had come from the Eastern Desert, where it was said to be a common form of camel stick, though he could not tell me its precise origin. It had been in his possession many years, and it certainly was not the form in common use among the Bisharin. Independent inquiry confirmed this, and it was also possible to eliminate the Ababdeh. I knew that the uas form did not occur among the Hadendoa or Beni Amer of the Sudan, so that I provisionally assigned its origin to the Sinaitic Peninsula or to an area between Suez, Kena and Kosseir. That the latter area is correct seems to be indicated by a passage in Chautre who, writing of the Ma'aza, says:—"They make a stick absolutely resembling the sceptre of the ancient Egyptians from the branches of the *Tamarix mannifera* which is abundant in some parts of the desert".

The specimen illustrated is about 84 cm. long and has a small hole drilled in the lower end. The upper third is bound with rings of iron and whippings of copper wire to prevent splitting. The head, which is between 15 and 16 cm. long, is covered with raw-hide which has been neatly stitched along its upper edge.

<sup>1</sup> *Recherches Anthropologiques en Egypte* (Lyon 1904), p. 218.



Scale 1

## TWO CLAY BALLS IN THE MANCHESTER MUSEUM

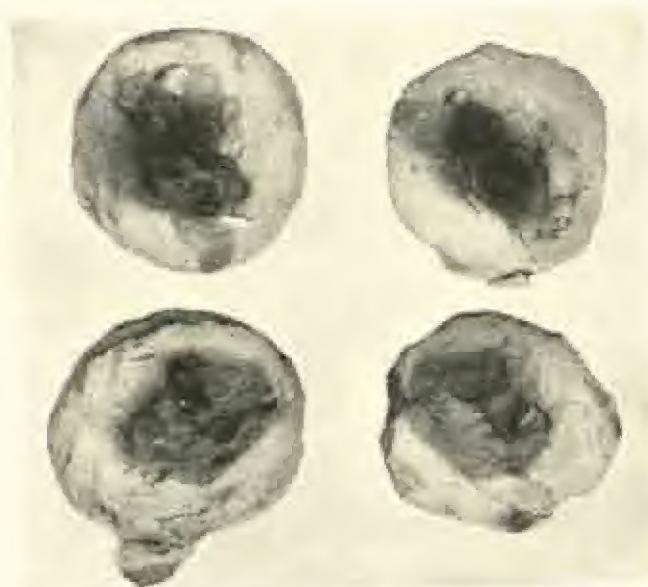
By WINIFRED M. CROMPTON

THREE are in the Manchester Museum two clay balls similar in size to the inscribed balls containing a core of papyrus or of linen, found by Peet at Abydos, an account of which was published in this *Journal* for January 1915, p. 8, with a further note in the October number, p. 253. The Manchester examples have, however, a perfectly plain surface, without any incisions or inscriptions. A few weeks ago we decided to cut these balls open and found that each contained, not papyrus or linen, but a tuft of red brown human hair, apparently infantile! (See photos, Pl. XVI, at top actual size, at bottom showing half a ball enlarged.) They are of unbaked Nile mud mixed with shell, of which a piece is apparent in the photo (bottom right-hand half-ball). To the outer surface of one, a small piece of linen adheres.

They form part of a tomb group found by Petrie at Kahun in 1890, and presented to the Manchester Museum by Mr Jesse Haworth the same year.

The group is dated by Petrie "from the style of the yellow-faced coffin heads and a head-rest of wood" to "about the XXth Dynasty." The list of contents of the tomb published by him in *Kahun, Gurob and Hawara*, p. 32, does not mention these balls, but the greatest care has always been taken in Manchester to keep together articles belonging to one tomb group, and I have no doubt that they form part of it.

Dr Elliot Smith has told me that he has never come across any mention or example of these balls, except those few recorded by Mr Peet. Now that attention has been drawn to the subject perhaps other examples may be brought to light by museum curators. It is singular that the dated examples known should be separated by so wide an interval of time as that between the Old Kingdom and Dynasty XX, even though the contents are entirely different.



The Four Half Balls, actual size.



One of the same, enlarged.

Clay Balls in the Manchester Museum.



## BIBLIOGRAPHY: GRAECO-ROMAN EGYPT

### A. PAPYRI (1914-15)

BY H. IDRIS BELL, M.A.

[Having been engaged, owing to the war, in work having no connexion with papyri, I have had very little leisure for bibliographical search; and this fact, with the interruption of communications due to the war, will explain why my bibliography is this year even less complete than usual. Several works referred to I have not had an opportunity of seeing, and several others I have had time only to glance at. Under the circumstances, and to avoid possible misconceptions, I have marked with an asterisk works not seen at all and with an obelus those which I have seen but have had no chance to study in detail. My thanks are due to Prof. Grenfell, M. Victor Martin, and Mr N. H. Baynes for supplying me with several references.]

#### I. Literary Texts.

The principal item under this head, as so often, is the annual volume of the Egypt Exploration Fund<sup>1</sup>. It is a further proof, if further proof were needed, of the wealth of the Behnesa site in literary and theological papyri that Volume XI of the Oxyrhynchus Papyri consists, like Vol. V, entirely of papyri of this class. The theological papyri proper are not this time of much note; but as an appendix to the theological section is published a papyrus of unusual interest, which is strictly to be classed as non-literary but is included here because of its importance for the history of the Coptic Church. It is a calendar of *συνάξεις* or services at various Oxyrhynchite churches on Sundays and festivals during a period of five months. The editors identify the date as A.D. 535; in the heading the list is curiously dated as *μετὰ τὸ κατελθ(εῖν) ἐπ'* Αλεξανδρ(εῖα) τὸν πάντα, and in the 14th indiction.

The new classical texts have not the importance of those in Vol. X, but include several interesting additions to the fragments of Greek literature. The most notable are parts of two pleasing scolia of Bacchylides and a well-preserved fragment of the *Aetia* of Callimachus, interesting because it shows us the author, so to say, in his workshop—in other words, availing himself of his chance proximity to a man from Icæn at a banquet to add to his stock of antiquarian lore. The other new texts are two MSS. of Hesiod's *Catalogue*; some additional fragments of P. Oxy. 1234 (the

<sup>1</sup> *The Oxyrhynchus Papyri*, Part XI. Edited by R. P. Grenfell and A. S. Hunt. London, 1915.  
7 plates.

Alcaeus MS.); Callimachus, *Tambi*; Antiphon Sophistes, Περὶ Ἀλγηθεῖας 1, a noteworthy addition alike to our stock of early Attic prose and to our knowledge of sophistic philosophy; an interesting fragment of a history of Sicyon, dealing with the rise of the tyrant Orthagoras; an unimportant fragment of an unknown Attic oration; Heraclides Lembus, *Epitome of Hermippus περὶ κομῳδῶν*; and an anonymous romance. Among the texts of extant works are MSS. of Sophocles, Euripides, Aristophanes, Herodotus, Thucydides, Demosthenes, and Livy. The fragments are mostly somewhat scanty and not textually of great value; but no. 1376, which contains part of the seventh book of Thucydides, is of considerable length and of real importance for the text.

Noteworthy as some of the above papyri are, the most interesting part of the volume is perhaps the section entitled "Graeco-Egyptian Literary Papyri," for here we are introduced to a literary genus as yet very scantily represented. Nos. 1380 and 1381, respectively the recto and the verso of the same long roll, are of particular importance. 1380, which is unfortunately in a bad state of preservation, contains part of a long invocation of Isis, beginning (so far as the extant portion goes) with a list of the cult-names under which the goddess was worshipped in various cities or districts, and concluding (again so far as the fragment goes) with an enumeration of her powers and her gifts to men. Besides its mythological interest the MS. is of geographical value. 1381, which is much more legible, is the introduction to, and commencement of, a *vita* (one is tempted to use the term, so much does the preamble recall that to the life of some mediaeval saint) of Imouthes (Imhotep). The work is, or purports to be, a free translation, or paraphrase, of an Egyptian work contained in a roll discovered, apparently, at the temple of Imhotep at Memphis. The translator's preface, explaining how, when he was tempted by the greatness of his theme to abandon his task, the god induced him to persevere, is of really quite exceptional interest. The most notable of the other texts in this part is a sailor's song to the Rhodian winds, an interesting specimen of popular verse; the remaining two are a small fragment from the end of "a story concerning the *aperij* of Zeus—Helios—Sarapis," and a papyrus containing medical recipes and theological extracts, the latter apparently added, no doubt because of their medical interest, as a sort of charm.

The third (and apparently the last) volume of the Florentine Papyri<sup>1</sup> contains three literary texts, all previously published elsewhere: a fragment of Sibylline oracles; a fragment of an unknown epic; and fragments of a treatise on Palmomancy.

The second volume of the Rylands Papyri<sup>2</sup>, which is mainly non-literary in character, contains three texts which, if not literary in the full sense, at least belong to the anteroom of literature. These are: two fragments from a translation of an unknown Latin work, the translator being Olympius Isidorianus; an astrological dialogue between Plato and an Egyptian prophet; and a table of measures of length.

J. U. Powell has now published his paper<sup>3</sup>, referred to in last year's report (p. 98),

<sup>1</sup> *Papiri greco-egiziani*, pubblicati dalla R. Accad. dei Lincei sotto la direzione di D. Comparetti e G. Vitelli. Vol. III. *Papiri Fiorentini, documenti e testi letterari dell'età romana e bizantina*, per cura di G. Vitelli. Ulrico Hoepli, Milano, 1915. 3 plates.

<sup>2</sup> *Catalogue of the Greek Papyri in the John Rylands Library, Manchester*. Volume II. *Documents of the Ptolemaic and Roman Periods* (Nos. 62—456). Edited by J. de M. Johnson, Victor Martin, and Arthur S. Hunt. 23 plates. Manchester: The University Press, 1915.

<sup>3</sup> In *Journal of Philology*, 1915, pp. 109—125.

on the Chicago fragments of Greek poetry. These are the fragments acquired by Goodspeed in 1903 and since twice edited. They are now re-edited from a collation by Hunt, who has combined fragments A and B, revised the text, and in this way made it probable that the fragments formed part of a single roll containing various poems. It was apparently a sort of anthology of Hymns. The most interesting is one which Powell takes as referring to the deified Arsinoe Aphrodite. He considers, but answers in the negative, the question whether the author was Callimachus.

In a new Italian periodical devoted to the study of papyrology A. Calderini publishes a fragment containing Aphorisms of Hippocrates<sup>1</sup>.

F. O. Allinson has published an article<sup>2</sup> on the *Epitrepones* of Menander, which he studies in the light of the new Oxyrhynchus fragment (P. Oxy. x, 1236), attempting a reconstruction of the passage affected.

E. Schwartz has a note<sup>3</sup> on l. 512 ff. of the same play.

Recent numbers of the series of Kleine Texte<sup>4</sup> issued under the general editorship of H. Lietzmann include some volumes of interest to papyrology. K. Jander collects a number of oratorical fragments lately discovered, many of which are from papyri<sup>5</sup>. E. Diehl edits the recently discovered fragments of Sophocles<sup>6</sup>, namely the *Ichnætæ* (which might surely be spared the Latin title *Indagatores*), the *Euryppylus*, the *Ἀχαιῶν Σύλλογος*, and some short fragments culled from Photina and elsewhere. H. v. Arnim does a similar service for Euripides<sup>7</sup>. The volume begins with the life of Euripides by Satyrus (P. Oxy. ix, 1176), and the plays contained in it are the *Antiope*, the *Cretans*, *Melanippe ἡ σοφή*, *Melanippe ἡ δεσμώτης*, the *Oeneus*, the *Peirithous*, the *Stheneboea*, the *Hypsipyle*, and the *Phæthon*. Finally, S. Sudhaus collects the fragments of Menander recently discovered<sup>8</sup>. In the *Epitrepones* he incorporates P. Oxy. 1236,

The Italian *Studi* already referred to (below, footnote 1) contain a lexicon to the papyrus fragments of Sophocles<sup>9</sup> by A. Calderini and his pupils.

J. U. Powell publishes notes<sup>10</sup> on Sophocles, *Ichnætæ*, col. iv, l. 15, and col. vii, l. 26, and *Euryppylus*, Frag. 87 (which he proposes to assign to the *Ichnætæ*), and on Frag. i, col. i, l. 18 of the beautiful Sappho ode in P. Oxy. x.

Though the Herculaneum Papyri have no connection with Egypt they are, palaeographically, of considerable interest and importance to the papyrologist; and it seems well therefore to refer here to the scheme for a publication of all the more complete ones which the Naples Academy has formed. The first volume has already appeared<sup>11</sup> and raises the most favourable expectations regarding the whole series. It includes

<sup>1</sup> In *Studi della Scuola Papirologica*. R. Accad. scientifico-letteraria di Milano, 1, 1913.

<sup>2</sup> In *Amer. Journ. of Phil.* 1913, pp. 185—202.

<sup>3</sup> In *Hermete*, 1915, pp. 312—313.

<sup>4</sup> *Kleine Texte für Vorlesungen und Übungen*. Herausgegeben von Hans Lietzmann. Bonn.

A. Marcus und E. Weber's Verlag.

<sup>5</sup> No. 118. *Oratorum et Rhotorum Graecorum Fragmenta super Reporta*. 1913. 1 M.

<sup>6</sup> No. 112. *Supplementum Sophocleum*. 1913. 0.90 M.

<sup>7</sup> No. 112. *Supplementum Euripideum*. 1913. 2 M.

<sup>8</sup> Nos. 44—46. *Menandri Reliquiae super Reportam*. 1914. 2 M., Geb. 2.40 M.

<sup>9</sup> *Studi d. Sc. Pap.* 1, pp. 89—199.

<sup>10</sup> *Notes on Recent Discoveries*, in *Class. Quarterly*, 1915, pp. 142—143.

<sup>11</sup> *Herculaneum Falsarium quia supervent collectio tertia*. Raccolta pubblicata a cura della R. Accad. di Arch., Lett., e Belle Arti di Napoli, con riproduzioni fotomeccaniche. Tomo I. Ulrico Hoepli, Milano, 1914.

two only of the rolls, Philodemus, Περὶ Κακῶν and Περὶ Θαράτου Δ. Transcripts of both are given, with introductions, notes, and an index of words; and of even more importance, at least for the papyrologist pure and simple, are the remarkably successful collotype facsimiles, obtained by a process invented by Signor A. Alinari, which of course furnish a basis for palaeographical study such as the lithographs could not do.

## II. *Publications of Non-literary Texts.*

Under this head the most important publication of the year is, beyond all comparison, the second volume of the Rylands Papyri already referred to<sup>1</sup>. Its importance is due to several facts: it is one of the largest volumes of papyrus texts yet published; it contains many texts of great, some of unusual, interest; and its editors, whose names are a sufficient guarantee of the excellence of their work, have handled the material in such a way and with such wealth of commentary as to increase its value many times. The preface by Hunt explains that the bulk of the work was done by Johnson and Martin; his own task was mainly that of supervision and revision. The volume is admirably printed by the Clarendon Press and contains a number of most excellent plates, which will be invaluable for palaeographical purposes.

The texts contained in this volume consist (except for the three literary fragments already mentioned in § I) of non-literary documents of the Ptolemaic and Roman periods; those of the Byzantine period are reserved for a third volume. The present volume contains too much material to be at all adequately dealt with here, but some of the more important of its contents may be briefly referred to.

The Ptolemaic papyri at the beginning are not of great importance so far as their contents are concerned, but palaeographically several of them are exceedingly valuable as dating from the late Ptolemaic period, hitherto very inadequately represented by papyri, and they include two documents of the reign of the last Cleopatra.

The greater part of the bulky volume is, however, occupied by texts of the Roman period. One of the most novel and interesting of these is no. 77, a document relating to an election to a municipal office; a certain Achilles, elected to the office of cosmetes, seeks to evade the burdensome honour by undertaking that of exegotes. The text immediately following is also of interest, being a covering letter sent with a packet of official letters and despatches. There are documents relating to irrigation and the land survey; to the appointment to liturgies (no. 90 is one of special interest); to concessions of trade rights; to the lease of state lands; to the *diakrisis* of ephebi and to *ēmisprīsis*; certificates of pagan sacrifice (*libelli*); and other interesting official texts. The section of petitions also contains several noteworthy documents; among others is a group (nos. 124—152) of petitions from Euhemeria dated between A.D. 28 and 48 and therefore palaeographically valuable. Many of the contracts too are of considerable interest; but perhaps the most valuable part of the volume, thanks mainly to the diligence and conscientiousness of the editors, is the section of taxation. The very elaborate commentaries attached to some of these texts, particularly those on no. 192 b (taxes on garden land), which include the republication in an improved form of several papyri in other collections, and 213 (one of several of the carbonized papyri of Thmuis, other specimens of which have been published among the Berlin Papyri and in the volumes of the

<sup>1</sup> See above, p. 130.

Società Italiana), may really be described as epoch-making. It should be added that an appendix contains a republication of a Ghent papyrus very valuable for questions of taxation but originally published in a most unsatisfactory form. After the texts are given "descriptions" of many other papyri. It is impossible to avoid a feeling of regret that a volume of this importance should have been fated to appear at a moment when events leave little time or inclination for such studies.

Another of the major publications of the year is the third volume of the Florentine Papyri already referred to<sup>1</sup>. The volume, which is in the nature of a "Nachlese" from the collection, is not of equal interest with the first two, many of its most interesting texts having already been separately published elsewhere; but it contains some noteworthy documents which had not previously been made public. The papyri come from various sources. A compact group is formed by those from Aphrodito (Kom Ishgau), which, though not equal in interest to those in the Cairo catalogue of J. Maspero or even to those in the forthcoming P. Lond. V. supplement those very usefully. They include two interesting official orders from the Dux of the Thebaid, and a petition (no. 296) which is of some importance for local history, despite its mutilation. The remaining texts are from Hermopolis, the Fayum, Oxyrhynchus, and Apollionopolis Heptakomias (the papers of Apollonius). They are of various periods but largely of the Byzantine age. Among the most interesting of the previously unpublished texts is no. 384, which is a lease of a bathing establishment, doubtfully dated by the editor in the 5th century and addressed, contrary to the usual Byzantine practice, by lessor to lessee. There are five good photographic facsimiles. It should be added that much of the work of this volume is due to E. L. de Stefani and Medea Norsa.

A small but distinctly interesting collection of early Ptolemaic papyri acquired by Prof. Gradenitz through the Deutsches Papyrus-Kartell is published by G. Plaumann in one of the volumes of the Heidelberg Academy's series of *Sitzungsberichte*<sup>2</sup>. The papyri are very fragmentary (they are pieces of cartonnage), but the patience and skill of Plaumann, aided by Ibscher, have succeeded in reconstituting several fairly complete texts, which are edited by Plaumann with the ability that papyrologists have learned to expect from him. Of the ten more substantial texts the most interesting is perhaps the first, which is, however, unfortunately so incomplete that its interpretation is by no means certain. Plaumann takes it as a royal decree ordering an ἀπογραφή of slaves for the purpose of a slave-tax. Wilcken, pointing out several difficulties in this view and bringing the text into connexion with a passage in the *Pseudo-Aristeas*, proposes to take it as referring to a sale of prisoners of war. This very interesting theory is, however, itself open to objections, and the readings by which Wilcken supports it are doubted by Plaumann. A third suggestion, for which there is something to be said, is that of Oertel, that the decree relates to the sale by the King of prisoners to the soldiers who captured them. Among the other texts may be mentioned a deed of surely for a trapezite; a good example of a royal oath by an official; a document (unfortunately very incomplete) relating to the issue of σίτος ἀγοραστών to the troops; a taxing-list, one item of which throws light on the festival of the Πτολεμαῖα; and a document explained, probably with justice, by Plaumann as a fictitious sale of donkeys.

<sup>1</sup> See p. 130, footnote 1.

<sup>2</sup> *Gründliche Papyri der Sammlung Gradenitz: Sitzungsber. d. Heid. Akad. d. Wiss. Phil.-hist. Klasse*, 1914. 15. Abb. 3 plates.

in payment of a debt for rent. At the end are given some small fragments which contain various minor points of interest, chiefly chronological; and there are three rather unsatisfactory plates of facsimiles. We learn from the preface that Plaumann is serving in the German army as a *Kriegsfreiwilliger*. All papyrologists, of whatever nationality, will unite in the hope that this excellent worker in their field may survive the dangers to which he is exposed.

Preisigke has published, in a single volume, parts 4 and 5 of his *Sammelbuch*<sup>1</sup>. This part brings the number of texts in the collection to 6000 and concludes Vol. I; Vol. II, which it is hoped to publish before long, will contain only indices, and the collection of texts will be continued in Vol. III. The present instalment, like part 3, contains a much larger proportion of papyrus texts than parts 1 and 2. They include several unpublished texts—a letter in a private collection at Bremen (4630), several documents belonging to Prof. Gradenwitz (5670—5679), etc.; and many old and inaccessible publications, such as the *Charta Borgiana* (5124). The succeeding parts are to appear in the *Schriften der Wiss. Gesellschaft zu Strassburg*.

Another part of Wessely's *Studien*<sup>2</sup> has appeared. It contains a number of the older Vienna papyri, beginning with the Artemisia papyrus, and the Zois papyri (second cent. B.C.). The others are Latin or bilingual documents, extending in date from the first century B.C. to the Byzantine period, and including a *volumen literarum* received by a Roman named Macedo, Latin military documents, documents from Ravenna (A.D. 504), etc. A facsimile is given of each, with a full transcript and a short bibliography. The plates are remarkably successful, and will be invaluable to palaeographers.

The Italian periodical already referred to<sup>3</sup> contains several new publications of non-literary papyri, by various editors.

A number of inscriptions, in Greek and Egyptian (Demotic?), from the quarries of Gabel Silsile in Upper Egypt have been published in a separate volume by Preisigke and Spiegelberg<sup>4</sup>.

A volume which in some ways belongs to the next section but, inasmuch as it begins with the publication of a papyrus text, ought perhaps to be mentioned here is a monograph by E. von Drußel, which has an interest additional to its intrinsic value inasmuch as it forms the first volume in a new series issued under the auspices of L. Wenger<sup>5</sup>. V. Drußel, starting with a Heidelberg papyrus which contains drafts of notarial documents in skeleton form, discusses the Byzantine document generally from the formal point of view.

<sup>1</sup> *Sammelbuch Griechischer Urkunden aus Ägypten*. See last year's report, p. 101. I have just seen the volume, but I owe the above description to M. Martin.

<sup>2</sup> *Studien zur Palaeographie und Papyruskunde*, Heft XIV. *Die ältesten griech. und lat. Papyri Wiens*, ed. by Wessely. Leipzig, Haeselich, 1914. 14 plates. Here again I am indebted to M. Martin for the details.

<sup>3</sup> See above, p. 131, footnote 1.

<sup>4</sup> \* *Ägyptische und griechische Inschriften und Graffiti aus den Steinbrüchen des Gebel Silsile (Oberägypten) nach den Zeichnungen von Georges Legrain*. Fr. Preisigke und G. Spiegelberg. Strassburg, Trübner, 1915. Pp. 24, 24 plates. Folio. M. Martin, who sent me the reference, had been unable to see the volume.

<sup>5</sup> \* *Münchener Beiträge zur Papyrusforschung*. Herausgegeben von Leopold Wenger. I. *Papyrologische Studien zum byz. Urkundenkreis im Anschluss an P. Heidelberg 311*. München, C. H. Beck, 1915.

A. Cowley has published a new Aramaic papyrus<sup>1</sup> in the Bodleian, which he dates in the third (rather than the second) century B.C. It appears to relate to a law case at Abydos (?) concerning the division of property. He also republishes two Aramaic ostraca<sup>2</sup> from Elephantine containing letters.

J. Cidat, in the course of notes on the Isthmus of Suez, publishes some Greek inscriptions<sup>3</sup>; and the same number of the *Recueil* contains an article by the lamented J. Maspero<sup>4</sup> on some Greek inscriptions from the great temple at Denderah.

Though they have nothing to do with Egypt, two important documents published by E. H. Minns<sup>5</sup> seem to call for mention because they furnish interesting parallels, legal and palaeographical, to the papyri from Egypt. These are two Greek conveyances of a vineyard, written on parchment or leather and found, along with a Pehlevi document, at Avroman in Persian Kurdistan. They are dated by years of the Seleucid era corresponding respectively to the years B.C. 88 and A.D. 22-21. The earlier is in an uncial, the later in a cursive hand, each of considerable palaeographical interest; and the documents are of no less importance from a legal and historical point of view. They are very carefully and elaborately edited, with small facsimiles, and have in addition been published in collotype facsimile, with the usual transcripts and palaeographical descriptions, by the New Palaeographical Society<sup>6</sup>.

The same part of the New Palaeographical Society's second series contains also plates of three other papyri: an unpublished 1st century roll of *Iliad* II in the British Museum; two pages of the Rylands *Odyssey* (P. Rylands 53); and the bilingual Cicero papyrus in the same library (P. Rylands 61)<sup>7</sup>.

### III. Monographs, Articles, Reviews, and Miscellaneous.

A general guide to the legal side of papyrology has been published by M. Modica<sup>8</sup>, a former student in Weiger's Seminar at Munich. The first part of this volume is a general account of papyrology as a whole, the various collections, the palaeography, bibliography, etc., with ample references. A list of literary papyri which concludes this part seems unnecessary in such a work and is, moreover, far from complete. The main portion of the volume is part 2, which gives a comprehensive survey of the whole field of study from the legal point of view. The volume is rather a collection of existing material than a substantive addition to our knowledge, but as such it will be very useful, particularly as it gives very full references.

A very useful publication of that indefatigable worker Preisigke is a collection, in glossary form, of technical terms met with in papyri, of much the same kind as that included in Hohlwein's *L'Egypte Romaine*, but fuller<sup>9</sup>. The various meanings of each

<sup>1</sup> Proc. Soc. Bibl. Arch. 1915, pp. 217-223.

<sup>2</sup> Notes sur l'Isthme de Suez, in *Revue de Travaux*, 1915, pp. 33-40.

<sup>3</sup> Ib., pp. 93-96.

<sup>4</sup> *Parchments of the Parthian Period from Avroman in Kurdistan*, in *Journ. of Hell. Stud.* 1915, pp. 22-65, plates I-III.

<sup>5</sup> Ib., plates 53-55.

<sup>6</sup> Series II, Part III, plates 51, 52.

<sup>7</sup> *Introduzione allo studio della Papirologia Giuridica*. Con prefazione del Prof. P. Bonfante. Francesco Vallardi, Milano, 1914. 12 lire.

<sup>8</sup> *Fachwörter des öffentlichen Verwaltungsdienstes Ägyptens in den griechischen Papirusurkunden der ptolemäisch (nuc)-römischen Zeit*. Göttingen, Vandenhoeck und Ruprecht, 1915.

word are given, and references are added. The list might be supplemented here and there, but in such matters it is well-nigh impossible to arrive at a principle of inclusion satisfactory to all, and the publication of the volume is certainly a great service to papyrologists.

The second volume in Wenger's series referred to in the previous section (see p. 134) is formed by Vol. II, part 1, of San Nicolò's *Vereinswesen*<sup>1</sup> (see *Journ. Eg. Arch.* 1914, p. 186), the first volume of which appeared separately some years ago. Whereas Vol. I was largely a preliminary collection of material, Vol. II represents the historical estimate of this material. The subjects dealt with are "The Origin and End of the Associations," "The Organs of the Associations," and "The Property of the Associations." Vol. II, part 2 (with 4 chapters) will, if circumstances permit (the author is, alas! at the front), be published later and complete the work.

A. Steinwenter, whose *Vestitumnisverfahren* was noticed last year, has since published a further monograph, devoted this time to the public documents of the Romans<sup>2</sup>. Whereas the last, it deals only in part with papyri, but papyri are of course treated; of particular interest to papyrologists is the section dealing with the *δημόσιον ἀρχεῖον* of Byzantine papyri.

H. Hitzig has published an article dealing with Greek marriage contracts<sup>3</sup>, which is at present inaccessible to me.

A miscellaneous volume of papyrological studies, published to celebrate the 40th anniversary of the Philologenklub of Innsbruck<sup>4</sup>, seems, from a review, to contain some interesting material. The papyrological contents are: notes on various papyri by E. Kalinka; an examination of the Constitutio Antonia by R. von Scala; and an article on the juridical function of the *Βιβλιοθήκη Έγκτορεων* by Fr. von Woess.

The Italian periodical, *+Studi*, already referred to (above, p. 131), contains, besides the contents noted, notes on various published papyri and on single points, besides reviews. I have also seen two reprinted articles, probably from a second volume, one juridical studies by Castelli<sup>5</sup>, consisting of *I Bona Materna nel Papiri Greco-Egiziani*, and *Un Testamento romano dell' anno 131 d. Cr.* (on the Latin papyrus published by S. de Ricci in *Comptes Rendus de l' Acad. d. Inscr. et B.-L.* 1914, pp. 524–533); the other a more or less popular account of private letters from Egypt<sup>6</sup>, given as an inaugural lecture to the papyrological school by A. Calderini.

Reference should have been made last year to a careful study by A. B. Schwarz of the formal distinction between two classes of Graeco-Roman contracts, the *homologia* and the so-called protocol-form<sup>7</sup>. He seeks to determine the motives underlying the use of these two forms, and, while recognizing that they were employed ultimately

<sup>1</sup> *Ägyptisches Vereinswesen zur Zeit der Ptolemaier und Römer*, II Band, 1 Abt. München, C. H. Beck, 1915.

<sup>2</sup> *Beiträge zum öffentlichen Urkundenwesen der Römer*. Graz, Verlag von Uir. Mosers Buchhandlung, 1915.

<sup>3</sup> \* *Griechische Heiratsverträge auf Papyrus* in *Festgabe der Philosophischen Fakultät*, I, Zürich, 1914, pp. 25–45.

<sup>4</sup> \* *Aus dem Werkstatt des Heraus:* *Papyrusstudien und andere Beiträge*. Innsbruck, 1914.

<sup>5</sup> *+Studi di Papirologia Giuridico*, 1916.

<sup>6</sup> *+Lettere Private dell' Egitto Greco-Romano*, 1915.

<sup>7</sup> *Homologie und Protokoll*, in *Festschrift für Ernst Zitelmann*. Duncker und Humblot, München und Leipzig, 1913.

more or less fortuitously, inclines to the view that originally the distinguishing feature of the *homologia* was that it was the acknowledgement of an accomplished fact. The latter part of the article is devoted to a detailed consideration of a particular class of such contracts, the Ptolemaic *Abstandsgeschäfte* (releases or acknowledgements of the surrender of rights, *συγγραφαι ἀποστασιων*).

A very useful book on a subject hitherto rather neglected by papyrologists is H. B. van Hoësin's *Roman Cursive Writing*<sup>1</sup>, which deals with the palaeography of the Latin cursive from the earliest examples to the end of the 7th century. Writing on other materials than papyrus is of course examined, but the bulk of the volume has to do with papyri, and it offers an exceedingly useful collection of material, with a careful palaeographical description of each document, a summary history of the forms of each letter at the end, tables of alphabets, and valuable appendices.

A service has been rendered to editors of papyri by F. Paulus in a monograph dealing with the officials of the Arsinoite nome during the Roman period<sup>2</sup>. After a short introduction on the different categories of officials, the author gives an alphabetical list of all the known officials of the nome, doubtful ones included, with dates and references. After this comes a chronological list of strategi, *βασιλικοι γραμματεις*, and *γραμματεις μητροπολεως*, and an alphabetical list of titles with references to the current numbers of the list of names.

A. Steiner has reprinted the first part of his *Fiskus der Ptolemäer*<sup>3</sup>, with the addition of parts II and III, which concern respectively "Der ptolemaische Staat als Vermögenssubjekt," and "Das Forum des Saatlikor und seiner Privilegierten." It is to be hoped that the new volume is free from the numerous errors which marred part I as originally published.

A suggestive article<sup>4</sup> has been published by E. Cavaignac on Egyptian chronology in the 3rd cent. B.C. and on the vexed question of the relation between the Macedonian and the Egyptian calendars.

Reference must be made to two very interesting historical papers which have appeared in this Journal:—by Mahaffy on Cleopatra VI<sup>5</sup>, and by Hogarth on Alexander's work in Egypt<sup>6</sup>.

In this connexion Wilcken's paper *Über Werden und Vergehen der Universalreiche*<sup>7</sup>, delivered as an oration at the University of Bonn on the Emperor's birthday last year, may also be referred to, though it is not strictly relevant to the subject of this bibliography. It is a sketch, written with its author's usual clearness, acuteness, and range of knowledge, of the various efforts after universal empire, their rise and gradual decay, from ancient Babylon to—the British Empire! The occasion and the circumstances of the time may excuse the fact that the lecturer is much less "objective" (and, an Englishman will hold, less true to fact) in his treatment of recent history than when dealing with the remote past.

<sup>1</sup> Princeton University Press; London, Humphrey Milford, 1915. 8vo. Cloth £2.00 net.

<sup>2</sup> \* *Praescriptio der Beamten des Astarte-Nomos in der Zeit von Augustus bis Diocletian*. Inaug. Diss. Greifswald, 1914. I owe the above account to M. Martin.

<sup>3</sup> \* *Der Fiskus der Ptolemäer*, Teubner, 1914.

<sup>4</sup> *La Chronologie égyptienne au III<sup>e</sup> siècle av. J. C.*, in *Bull. de Corr. Hell.* 1914, pp. 5—20.

<sup>5</sup> *Cleopatra VI*, in *Journ. Eg. Arch.* 1915, pp. 1—6.

<sup>6</sup> *Alexander in Egypt and Some Consequences*, ib., pp. 53—60.

<sup>7</sup> Bonn, Verlag von Friedrich Cohen, 1915.

J. G. Milne has published an article<sup>1</sup> on a number of leaden tokens of the Graeco-Roman period from Memphis, several bearing Greek legends. He divides them into various classes: imitations of coins, token-currency, etc. Plates are given.

A useful review of the Munich papyri (*Journ. Eg. Arch.* 1915, p. 101) by the late J. Maspero has appeared in the *Byzantinische Zeitschrift*<sup>2</sup> and another, from the juristic point of view, by Pertzsch in the *Gött. gal. Anz.*<sup>3</sup>

S. de Ricci has published another instalment of his valuable *Bulletin papyrologique*<sup>4</sup>; this is part IV, which includes the years 1905—1912.

This bibliography, in view of the difficulty of communication with Germany, may be concluded by one or two personal notes. One great loss to papyrology due to the war, the death of J. Maspero, was recorded last year. On the German side Strack has fallen. Several other German and Austrian papyrologists are serving in the enemy's ranks; we must hope that they will be spared to continue their labours after the war. An irreparable loss, not merely or even primarily to papyrology, but to the historical study of Greece in general, is the death of Prof. Thimel. A very appreciative notice of him by J. H. Moulton has appeared in the *Classical Review*<sup>5</sup>.

The war's ravages are not confined to human lives. It is probably in consequence of war conditions that the *Byzantinische Zeitschrift* has ceased to appear—whether altogether or "for the duration of the war" I am not certain.

Lastly, papyrologists will be interested to hear that Wilcken has removed from Bonn to Munich and that M. Gelzer has succeeded Otto at Greifswald.

I cannot conclude this bibliography, the second published since the war broke out, without expressing the hope that it may also be the last to appear under such conditions, and that the present breach in the relations of the various countries may leave no permanent estrangement. The spirit which breathes from the greater part of Wilamowitz's fine rectoral address<sup>6</sup> has found a ready response in this country; and we must hope that he is needlessly pessimistic in his view of the immediate future. As soon as the war is over it will be a matter of the most urgent necessity to rebuild the fabric of international scholarship, which now lies in ruins; and rebuilt, sooner or later, it will surely be—

"Alter erit tum Tiphys, et altera quae rehat Argo  
Delectos heros";—

"Altera bella" too without doubt; but this time wars less deadly and of better omen than that which is now desolating Europe.

<sup>1</sup> + *Ancient Egypt*, 1915, pp. 107—120.

<sup>4</sup> + Vol. 23, 1914, pp. 220—231.

<sup>2</sup> + 1915, pp. 427—430.

<sup>5</sup> + *Riv. d. Et. grecques*, 1914, pp. 153—189.

<sup>3</sup> 1915, pp. 221—222.

<sup>6</sup> *Beim Antritt des Rektorates der Berliner Universität*, in *Reden aus der Kriegszeit*, IV Heft, pp. 5—26. Berlin, Weidmann, 1915.

## NOTES AND NEWS

Mr H. R. Hall, the Hon. Secretary of the Fund, has been gazetted as an officer on the General List. The editorship of the *Journal*, which in the last number was still in his hands, now devolves upon Dr Alan H. Gardiner, whom Mr J. S. Cotton, the late Hon. Secretary of the Fund, has kindly consented to assist.

M. Pierre Lacau, the new Director of the Service of Antiquities, who until recently was serving in France, has now taken up his new post in Egypt. Egyptologists will agree that no worthier successor to Sir Gaston Maspero could have been found in any country. As a hieroglyphic and Coptic scholar M. Lacau's achievements are too well known to require commendation here; as a man he enjoys the respect of all who have come into contact with him, and is extremely popular among his own countrymen, as indeed he is everywhere.

At Thebes Egyptology is by no means at a standstill. Mr Lansing is excavating on behalf of the Metropolitan Museum of Fine Arts, New York, and Mr N. de G. Davies continues to copy the paintings of the private tombs for the same institution. Mr Ernest Mackay, working for Mr Robert Mond, has safeguarded and restored a number of the same tombs, and photographed others. Among his recent finds are two tombs which had been lost sight of since the time of Lepsius. One of these belonged to Nebenkēmo, a military officer of the joint reign of Thothmosis III and Amenophis II, while the other was originally occupied by a Counter of the Grain of Amun, whose name is erased, but was later usurped by one Mahu, a high official in command of the Ramesseum.

We are indebted to Mr J. Offord for the following:

Sir Gaston Maspero has devoted a considerable amount of time to preparing, as a summary of one of the scientific achievements of France to be presented at the San Francisco Panama Canal Exhibition, an account of the French share in the history of *L'Egyptologie*. It is ornamented by an excellent reproduction of Léon Coignet's portrait of Champollion Le Jeune, with whose researches the account of the matter commences. The story is continued down to the recent works of M. Weill upon The

Royal Decrees of the Old Empire; M. Jean Maspero upon The Byzantine Army in Egypt; M. Jouguet upon Municipal Life in Egypt; and Lesquier upon the Ptolemaic Army. A Bibliography of all the most important French Egyptological works is appended. In a note Sir Gaston Maspero mentions that in addition to the loss, in the war, of MM. A. J. Reinaach and Jean Maspero, M. Daumas, architect of the Institut d'Archéologie, has been killed and MM. Sotrias and Weill wounded.

The lectures for December, January and February were delivered at the Royal Society's Rooms by Mr A. M. Blackman, the respective subjects being "Pre-dynastic and Early Dynastic Egypt," "The Old Kingdom" and "Egyptian Conceptions of Immortality." In March Miss Emily Paterson lectured on "Animal Worship in Ancient Egypt." In April there will be no lecture, but arrangements are being made for one in May, and possibly for another in June.

Mr H. R. Hall writes that in the obituary notice of the late Mr James Dixon, contained in the last number of the *Journal*, the fact of his having been promoted Lieutenant was omitted by an oversight.

Sir Gaston Maspero, writing to the Editor about his article on the Egyptian origin of the Semitic alphabet in the last number of the *Journal*, points out that Charles Lenormant has hitherto (p. 1, footnote 1) been confused with his son François, and that Emanuel de Rougé was the pupil of neither the one nor the other. The facts seem to be as follows:—Emanuel de Rougé, born in 1811, read his memoir on the Phoenician writing before the Académie des Inscriptions in 1839; only a short analysis was given in the *Comptes Rendus* at the time, and the complete work did not appear until two years after its author's death in 1872, when his son Jacques de Rougé discovered the original MS. of the *Mémoire sur l'origine de l'alphabet phénicien* and published it with a dedication to François Lenormant. That scholar had recently issued his *Essai sur la propagation de l'alphabet phénicien dans l'ancien monde*, in which he whole-heartedly accepted E. de Rougé's view of the derivation of the Phoenician alphabet from Egyptian hieratic writing. The theory that the Phoenician alphabet was modelled on the Egyptian hieroglyphs was formulated by Charles (not François) Lenormant at his lectures on ancient history in 1838; these lectures were attended by E. de Rougé, who expounds Lenormant's views in his own essay posthumously published in 1874 (*Mémoire*, pp. 5—8). Here he naturally speaks of M. Lenormant, not of M. Charles Lenormant; and this fact, coupled with the dedication to François Lenormant subsequently added by J. de Rougé, has been the cause of the confusion kindly pointed out by Sir Gaston Maspero.

## NOTICES OF RECENT PUBLICATIONS

*Heliopolis, Kafr Ammar, and Sharufa.* By W. M. FLINDERS PETRIE and ERNEST MACRAY. With chapters by G. A. Wainwright, R. Engelbach, D. R. Derry, W. W. Midgley. (British School of Archaeology in Egypt and Egyptian Research Account, Eighteenth Year, 1912.) London, 1915. Pp. vi+55. Fifty-eight photographic and other plates.

One of the greatest difficulties that besets a scientific explorer is to find time and courage to publish his results between the seasons of active labour in the field. I wish to lay stress on the word *scientific*, for in spite of the excellent models furnished now for many years by Petrie, Reisner, Lythgoe and others there are still expeditions sent out for plunder which have no records beyond a few selected specimens of antiquities in their packing cases to be displayed in museums or discussed from the point of view of the inscriptions upon them. For such explorers publication can have no real anxieties. Professor Petrie, however, in his immense series of memoirs for the Egypt Exploration Fund, Research Account and British School, has shown how a responsible explorer can combine annual fieldwork with detailed publication. We may well excuse some hastiness and imperfections in a memoir when it puts the public in possession of the varied discoveries within a few months of their attainment. Even Petrie and his assistants, however, sometimes have more material than can be dealt with in the year, and the latest volume issued by the British School describes the minor work of the winter 1911-12, most of the work of the three seasons 1910-13 having already seen the light in six earlier memoirs, *Roman Portraits and Memphis IV*, *Hawara Portraits*, *Tarkhan I and Memphis V*, *Tarkhan II*, *The Labyrinth Gerzeh and Mazghana*, and *Riqqeh and Memphis VI*. Apart from the more showy results such as the find of portraits at Hawara, the great treasure of jewellery (still unpublished) from the Pyramid of Ushmun and a smaller find in a tomb at Riqqeh, there is a plentiful and varied banquet spread in these volumes, too varied indeed for rapid digestion by any one Egyptologist, and the present reviewer must be content to make a selection suitable to himself. The work all lay between the Fayûm and Heliopolis, about the junction of Lower with Upper Egypt. The German excavations at Abu Sir el-Meleq had extended the known range of prehistoric cemeteries as far north as the mouth of the Fayûm, a position obviously of importance. The British School has now carried it twelve miles on to Gerza, within ten miles or so of the junction of the "Two Lands," so that the southern civilisation is now seen over the whole of the southern kingdom, while as yet there is no trace of prehistoric cemeteries (unless of the extreme end of the period in the northern). To judge by the objects figured, only those "sequence dates" which belong to the Middle and Later Prehistoric classes of Reisner were represented at Gerza. Until the archaeological report of the Prehistoric classes of Abu Sir is published it cannot be asserted that this indicates a spread northward of the southern civilisation after the earliest period, but at Gerza the frequent orientation of the heads to the north seems to show a local peculiarity of custom.

The work at Gerza yielded two other results of great interest. Wainwright found in two graves of the Middle Predynastic age beads of iron, in one case strung with other beads of gold carnelian and agate. Professor Gowland analysed the remains and found that they must have been of wrought iron; Wainwright explains the exceedingly rare occurrence of objects made of iron before the tenth century B.C. by supposing that smelting of iron ore was not practised and that only the very scarce telluric iron was employed and of course was highly valued.

The second result comes through Mr Midgley of Bolton, who, in examining the well preserved fabrics from Gerza, made the surprising discovery that they were all of *ramie* fibre, while his subsequent examination of stuffs from the First Dynasty cemetery at Tarkhan and Later Dynastic cemeteries showed that these were exclusively of the usual flax fibre.

A few miles north of Gerza, half way to the supposed boundary line at Lisht, at Tarkhan and Kafr Ammar were found a number of cemeteries. Here must have been a great city—on the scale of Memphis itself—under the First Dynasty and perhaps a trifle earlier, which however rapidly diminished in importance afterwards. Not a grave could be found dating between the XIth Dynasty and the XXVth, but there was some recovery later. The Tarkhan cemetery of the First Dynasty was extraordinarily well preserved: the superstructures could be thoroughly studied, and the wooden coffins, made of boards, etc. that had been used in the furnishing of houses, threw unexpected light on the carpenter's and joiner's work of the time.

The whole series of memoirs increases greatly our knowledge of the earliest periods of Egyptian antiquity from every point of view. They are a rich storehouse of archaeological details. The examination of the site of the famous Labyrinth, the pyramidal-temple of Amenemhat III, confirmed the dismal conclusions of 1888 when Petrie found only a vast bed of chips with a few precious relics of sculpture amongst them. The plan of Heliopolis begins to be intelligible, and there is a noteworthy absence of late remains on the site. Memphis yielded interesting monuments. For geography it is satisfactory to find a prince of Maitam at Riqqeh near Medum; but more can be deduced from a group of inscribed coffins and an altar in the Tarkhan—Kafr Ammar cemetery of about Dyn. XXV (*Heliopolis*, Pls. XXIX, XXXI). They belonged to a family of priests of Khnum in the city of Sinen-Hur or Shena-Khen, capital of the XXIst nome of Upper Egypt, as is proved by the title (very appropriate to a priest of Khnum) of  *qd b'w*, 'builder of bodies,'

which occurs as  in the Edfu list of local high priests (Batusch, *Dict. Geogr.* p. 1361). This fact finally settles the position of the XXIst nome, that of the Lower Pomegranate (?). The XXth nome, the Upper Pomegranate (?) of Heracleopolis, is shown by the German excavations to have extended across the mouth of the Fayoum to Abu al-Meleq; the XXIst followed on along the West Bank to the boundary of Lower Egypt, while the XXIIInd or Aphroditopolite lay parallel to it along the East Bank. The XXIst nome is named in Memphite tombs of the Vth Dynasty (DAVIES, *Ptahhotep*, II, pp. 24 et seqq.) and is in Monier's list from Coptos of about the VIIth Dynasty; it reappears in the Ptolemaic temple lists, but evidently was of small importance and is not recognisable in Greek papyri or in the classical authorities, having been perhaps absorbed into the Aphroditopolite nome. The capital evidently lay near Kafr Ammar and therefore almost opposite Atfih (Aphroditopolis); its position and one of its two names, *Sn-jn* "Warding off the Intruder," correspond excellently with *Azuedar*, translatable as "Prickle-city," which Ptolemy places west of the Nile in the same latitude as Aphroditopolis.

V. L. GRIFFITH.

*Beschreibung der Ägyptischen Sammlung des Niederländischen Reichsmuseums der Altertumer in Leiden.*  
Die Denkmäler der Saïtischen, Griechisch-Römischen, und Koptischen Zeit von Dr P. A. A. BOESER.  
Haag, Nijhoff, 1915. Pp. 41. Nineteen plates, and six figures in the text.

For half a century, until the colossal Cairo Catalogue was commenced, the State Museum at Leyden had the distinction of being the only great collection of Egyptian antiquities which aimed at systematic publication of its treasures. From 1839 onwards, during the long life of its first director, Dr Conrad Leemans, and even down to recent years, the stately livraisons of useful but inaccurate and inaccurate drawings and facsimiles continued to appear. The demands of modern archaeology for accurate delineation have been fully met by the new series in the hands of Dr Boeser, commenced in 1903. Photography here takes the lion's share, and with such success as has seldom, if ever, before been attained. After six volumes of monuments and sculptures of the earlier times, the seventh has just been issued containing stone monuments of the Saïte, Graeco-Roman and Coptic

periods. Among these a shrine with the name of Amasis II and some large sculptured sarcophagi are the most imposing. In some cases Dr Boeser's concise text is really too brief, dismissing for instance the name, genealogy, and interesting titles of a high priest of Coptos, who was also priest of the statues of two kings, with the description "a priest Hor." This is especially tantalising as there is no other publication of his stela (No. 8 on Pl. XIV), and for once the photograph needs supplementing by a hand-copy of the obscure inscription. One of the sarcophagi (No. 16) is of a high priest of the Memphis Ptah named Harmachis, whose stela is in the Vienna collection, and there are many other important records of sacerdotal personages at Leyden. The photographs of a massive sarcophagus of basalt (No. 2, Pls. VI-VII), covered with religious texts and figures and decorations in the pure Egyptian large-scale style which seems to be not later than the end of Dyn. XXVI, prove it to be of no little interest to students of early Greek connections with Egypt. The personage named upon it is  "Wahebramakhi son of 'Wagrs ('Αλεξανδρής), born of 'Soty (Ζηνόδορη)." The Greek names cannot be mistaken. Wahebramakhi, lit. "Waphra (Apries) in the Horizon," is of the same form as Neferehramakhi and Psammetichus and may be derived either from the praenomen of Psammetichus I or from the nome of Apries. It continued in use long after the tragic death of Amasis' predecessor; an Aramaic letter was addressed as late as 412 B.C. to **אַפְרִים בֶּן־בָּנָה** (SACRAE, *Aramäische Papyri aus Elephantine*, p. 44), but probably the owner of the sarcophagus lived in the sixth century and his Greek parents were early arrivals in Egypt, not more than a hundred years after the encouraging invitations given by Psammetichus to the Greek pirate warriors. It is unfortunate that there is no further description of this man, who, of pure Greek descent, attained to wealth and honour in Egypt and adopted fully its customs. Was he a great merchant, or perhaps a successful dragoman (*Hyparrénē*)? Whatever his precise date may be, there can be no doubt that the names of his parents on the sarcophagus furnish the earliest transcriptions hitherto found of Greek into Egyptian.

The (unEgyptian) Graeco-Roman and Coptic monuments are few: one gravestone is dated in 433 (= A.D. 722).

With this volume is issued a supplementary plate to volume IV, showing, reset in its proper context, a newly acquired block from the tomb which Harmais (Horemheb) built for himself at Saqqara before he came to the throne. The tomb with its superb sculptures was broken up long ago, and fragments from it were amongst the earliest acquisitions of the Leyden Museum.

F. L. GRIFFITHS.

*Le Musée Egyptien: Recueil de Monuments et de Notices sur les Fouilles d'Égypte.* Publié par M. G. MASPERO. Tome troisième, second fascicule. Le Caire, Imprimerie de l'Institut français d'archéologie orientale, 1915. Pp. 29—63. Plates XXIV—XXXVI.

This fascicule of the *Musée Egyptien* contains two separate contributions, both of interest and one of outstanding importance. The latter is the somewhat tardy publication of four new fragments of the Royal Annals known to us hitherto only from an imperfect block of diorite inscribed on both sides and preserved in the Museum of Palermo. The new fragments were acquired for the Cairo Museum in 1910, nos. 1, 2 and 3 being purchased from a dealer, and no. 4 being subsequently discovered in the *shabti* of Mitraileneh (Memphis) by an *employé* of the *Servizio des Antiquités*. Professor Petrie possesses yet another fragment of the same provenance as the last, still unfortunately unpublished. The discovery, within a short space of time, of so many new scraps of this all-important document justifies the expectation that others will yet be unearthed, whether from the sands of Egypt or in some European collection.

M. Henri Gauthier, upon whom the responsibility of the publication has fallen, somewhat strangely heads his paper *Quatre nouveaux fragments de la pierre de Palerme*, since a very considerable variation in the thickness of no. 4 enables him forthwith to establish the fact that this fragment cannot have originally formed part of the same monument as the Palermo stone, but belonged either to a duplicate, or to a similar though not identical, annalistic tablet. The phototypic reproductions of nos. 2 and 3 (Pl. XXX) perhaps also warrant a doubt as to their relationship to the Palermo stone,

the workmanship in general, as well as the details of certain signs, appearing to be much cruder. About no. 3, however, no such doubt can be felt, and that fragment, which is very nearly as high as, and not very much less broad than, the Palermo stone, clearly once belonged to the same monument. M. Gauthier succeeds in establishing the original relative positions of the two, and publishes diagrams (Pls. XXVIII—XXIX) to show that on the *recto* of the original tablet the portion now represented by the Palermo stone stood to the right of the Cairo fragment no. 1, while on the *verso* the position was, of course, exactly the reverse. From a study of the *verso*, where the Cairo fragment records "the year after the first numbering" of Userkaf (V. Dyn.), which obviously stands in a calculable relation to "the year of the third numbering" named on the Palermo stone, M. Gauthier computes the distance of the two fragments apart as equivalent to fourteen year-compartments of *recto*, line 2. Unless I am mistaken, his otherwise perfectly sound argument is here marred by a slight error of detail: the space occupied by 1 year of Userkaf (Palermo stone, *verso*, l. 2) is equivalent, not to "un peu plus de dix années des rois de la 1<sup>e</sup> dynastie" (p. 36), but to  $\frac{9}{2}$  year-compartments of *recto*, l. 2 and  $\frac{11}{2}$  year-compartments of *recto*, l. 3<sup>1</sup>. The space between the two fragments then works out at  $(2 \times \frac{9}{2}) - 7 = 12\frac{1}{2}$  year-compartments of *recto*, l. 2 instead of  $(2 \times \frac{10}{2}) - 7 = 14$ , as M. Gauthier estimates (p. 37). If now we accept the deduction already made by Dr Schäfer that the reign began in *Palermo stone, recto*, l. 2 must have lasted at least 56 years, it becomes obvious, as M. Gauthier has seen (p. 38), that there can have been no division marking a new reign in the last interval; the reign of king  (recto, l. 2 of the new fragment) will then have lasted about 52 years instead of 58 as indicated by M. Gauthier. Of course this figure must be taken to be a very rough estimate only, for although in the earlier portions of the monument the year-compartments in each separate line were almost exactly of equal length, in the reign of Snofru we already find considerable variations in the year-lengths. In comparing the length of this reign with that of Athothis, the second king of the First Dynasty in Manetho, M. Gauthier wrongly quotes Manetho's figure as 47 years instead of 57. Without entering further into these technicalities, I hope to have shown that M. Gauthier's calculations will have to be subjected to very careful criticism before they are used.

Unfortunately, it is uncertain whether the king  named on the new Cairo fragment no. 1 was the first or second successor of Menes; and upon the determination of this question depends the further problem as to whether the incomplete reign of which the ending is marked in the second line of the *recto* of the Palermo stone was really that of Menes, or that of Athothis who followed him. These questions would not be much easier to answer even if the Horus-name accompanying the royal name 'Ity' were legible with certainty; judging from the published photographs I incline to agree with M. Gauthier that some form of the name  Zer is the most probable reading, though M. Lacau is of the opinion (p. 34) that the traces do not correspond to any of the Horus-names of the First Dynasty hitherto known. At all events the authorities seem unanimous in disowning Mr Leggy's overhasty statement, based on M. Lacau's authority, that the Horus-name of Ity on the new fragment is  'Aha'; who in that case could not be Menes.

In the third line of the new fragment is the complete reign of  $8\frac{1}{2}$  years belonging to another king, probably also assignable to the First Dynasty. It is exceedingly tantalizing that in this case neither the Horus-name nor the cartouche is legible. If M. Maspero were right in his conjecture that the Horus-name consisted of three vertical strokes, these could still not possibly be restored as   , the Horus-name of Sanemibes (so M. Gauthier, p. 42), for the sign  could not at this date have been written vertically. The available space does not seem to be great, and would be more suited to such Horus-names as  or .

To return now to the top line of the *recto* we here learn that the pre-Menite kings of Lower Egypt enumerated on the Palermo stone were succeeded on the tablet by other pre-Menite kings, some of whom wear the crown of Lower Egypt. There remain the figures of seven such kings whose crowns

<sup>1</sup> These estimates, which are only approximate, take into consideration the difference of scale in the published photographs of *recto* and *verso* of the Palermo stone.

are still visible; all the names are lost. Of these seven kings the first, second and seventh wear the crown of Upper Egypt; M. Gauthier notes that the third king's crown is that of Lower Egypt, but he has failed to observe—unless the photograph here leads us astray—that the fourth, fifth and sixth all carry the *pachtet*, the double crown of Upper and Lower Egypt. We are reminded of Professor Sethe's theory of a united Egypt preceding the divided kingdoms of Hierakonpolis and Buto. However that may be, it seems highly probable that the kings of the top line were a single consecutive series of rulers who, for one reason or another, were regarded as legitimate by the designer of the tablet.

This is not the place to discuss the names of the different years or to criticize the numerous philological points which arise in that connection. It is with reluctance that I feel compelled to describe the present publication as inadequate in almost every respect. The originals are evidently very difficult to decipher, and all excuses would in any case have had to be made for errors in reading, for mistakes in interpretation, and so forth. But it cannot be said that the editor has faced his formidable task squarely. A hand-facsimile of all the fragments is absolutely essential, the setting up of the inscriptions in type involving very misleading displacements in the disposition of the signs. No attempt whatsoever has been made to deal with the lower portions of no. 1 *resta*, though the photograph Pl. XXIV shows that the position of the year-divisions is as a rule discernible, and that isolated signs which might prove of value can here and there be easily recognized. The large-scale photographs Pls. XXV, XXVII are not as well lighted as those of the smaller size Pls. XXIV, XXVI.

The lesser fragments nos. 2, 3 and 4 are of not nearly so great importance as fragment no. 1. No. 2 records the making of royal statues, male and female, possibly for some temple built by Cheops; in the lower register is the mention of the "carving and opening the mouth" (of a statue) of Har-entoku,<sup>1</sup> a form of the god Horus known to us from the Pyramid Texts. In this connection I would venture to suggest that in all, or at least in a vast majority of, the instances where we find the word *was* on the Palermo stone and the related fragments, this refers to the making of statues, not to the celebration of divine "birthdays"; birthday would naturally occur annually, and could scarcely be used, therefore, to characterize particular years<sup>2</sup>. Fragment no. 3 is small, like no. 2, and appears to record certain monuments dedicated to the goddess Bast by the obscure king Neferefre of the Fifth Dynasty. No. 4, the fragment from Memphis, is, like nos. 2 and 3, legible on one side only. This records, in the upper register, first the dedication of certain objects of silver and lapis lazuli, apparently in the year of the second numbering of the reign of king Snofra; then, in the following year, among other things the making of a statue of the same Pharaoh. We have no means of telling to what monarch the inscriptions of the lower register are to be attributed; this commemorates the capture of 1100 Libyan prisoners, besides much cattle. A cartouche is visible at the left of this lower

register, and appears to mention a king  whose identity is obscure; can he be identical

with the king Ity of whose second year a graffito has been found in the Wadi Hammamat?

In the future, when scientific research can resume its tranquil and systematic course, we must look forward to a new and comprehensive edition of these early Egyptian annals. In that edition all the separate fragments ought to be reproduced in hand-facsimile to one and the same scale, and no possibility of reconstructing the original monument in its entirety ought to be left untried. But this is a task for the future; in a review of M. Gauthier's preliminary essay it must not be forgotten that it has appeared in a time of stress ill-adapted to the achievement of the best results.

The second half of the new fascicule of the *Musee Egyptien* contains a description, by Mr C. C. Edgar, of some valuable finds made in 1910 at Kent el-Hajj near the site of the ancient Naucratis. It is but seldom that monuments of the Middle Kingdom have been discovered in the Delta; all the more important, therefore, is this publication of a painted and sculptured tomb-chamber of that date, together with a very fine basalt head of a king, reproduced in two good photographs, and a headless basalt group of Amenemhat III and two princesses. The scenes from the interior of the tomb-chamber are depicted in a series of not very convincing line drawings (Pls. XXXIII—XXXVI); the

<sup>1</sup> For the "opening of the mouth" of statues see Palermo stone, *ann.* 1, 4, no. 2; Sethe, *Orakelsteine*, 1, 114; DAVIES-GADDEN, *The Tomb of Amennakht*, p. 58, note 1.

<sup>2</sup> See the paper by Professor Sethe in this Journal, vol. 1, pp. 233–6.

religious texts, which contain many hundred lines, have been examined by M. Iacan, but remain still unedited. The only scene that appears to be at all exceptional is the representation, on the west wall, of four rows of priestesses playing the sistrum and clapping their hands before the owner of the tomb. This scene is accounted for by the particular function of that personage, who bears the peculiar name of Sebkhaesi (*Sbt-hs*); he was "superintendent of the priests" and "overseer of the harp-women and beauties" in the temple of Hathor, lady of Imau. In connection with these titles Mr Edgar makes the important and probable suggestion that Kom el-Hisn, or Imau, later Per nbt-Imau, is identical with the *Terenou* *polis* of Strabo. The decision of this question, however, must be left for future investigators. Our knowledge of the geography of Ancient Egypt, and especially of the Delta, is in a most deplorable state of confusion; when the work of our science is resumed, as we may hope with a new impetus and with new standards of thoroughness and accuracy, no more important field than this awaits the Egyptologist.

ALAN H. GARDINER

*Amentes: an account of the gods, amulets and scarabs of the Ancient Egyptians.* By ALFRED E. KNIGHT. London, Longmans, Green & Co., 1915. Pp. xi+274. With a coloured frontispiece, 4 plates and 192 illustrations in the text.

A handy and well-illustrated book for collectors and amateurs of the more superficial kind. The author has made good use of Dr Wallis Budge's *Gods of the Egyptians*, Professor Flinders Petrie's *Amulets* and M. Georges Daressy's *Statues de Diorites* (Cairo Catalogue); and many of the cuts of the gods have been specially drawn from glazed figures in the collection formed by Messrs. Spink. Egyptologists and serious students would find much to which they might take exception; but the author justified the very modest claims that he puts forward (pp. vii—viii), and on this ground the book may be recommended.

ALAN H. GARDINER





HEAD OF AMENHETEP I  
in the collection of the Earl of Carnarvon

## REPORT ON THE TOMB OF ZESER-KA-RA AMENHETEP I, DISCOVERED BY THE EARL OF CARNARVON IN 1914

BY HOWARD CARTER

A RECORD in the Abbott Papyrus<sup>1</sup>, dated "year 16, third month of the first season, day 18," under the reign of Rameses IX<sup>2</sup>, has been hitherto our only knowledge of the tomb of Amenhetep I. The record says:

The eternal horizon of King Zeser-ka-ra, L.P.H., Son of Ra, Amenhetep, L.P.H., which is 120 cubits deep from its superstructure, which is called: "The-High-Ascent," north of the House-of Amenhetep-L.P.H.-of-the-Garden," concerning which the Mayor of the City, Paser, had reported to the Governor of the City and Visier, Khaemwes;...and the great nobles, saying: "the thieves have broken into it."

Inspected on this day; it was found uninjured by the thieves<sup>3</sup>.

This ancient legal document recording the position of Amenhetep's tomb has naturally given it an additional interest, and has also been the cause of the repeated searches for it made in modern times by various archaeologists.

Professor SPIEGELBERG, in the year 1896, discovered the Mortuary Chapel of Amenhetep I on the borders of the Theban plain below Dra' Abou'l Negga<sup>4</sup>; and later, during the season 1898-9, Professors SPIEGELBERG and NEWBERRY found adjoining it, slightly to the north, what they believed to be the Mortuary Chapel of Queen Aahmes-nefert-ari<sup>5</sup>. These two chapels, situated partly in the cultivated land and partly on the desert edge, are portions of one monument (see note appended to this paper), and there can be little doubt that this is the temple referred to in the above document. In spite of this additional knowledge, namely the position of the king's mortuary chapel, his tomb remained undiscovered until the year 1914, when Lord CARNARVON had the good fortune to reveal its hiding-place.

Though we find by the Abbott Papyrus that the tomb was intact in the 16th year of Rameses IX, it seems that about fifty years afterwards it had already suffered under the hands of the grave-robbers. For, according to a record on the King's mummy,

<sup>1</sup> Found at Thebes and acquired by the British Museum in 1857, by purchase from Dr AMOTT of Cairo. Published in facsimile in *Select Papyri* (London, 1860), Part II, Pls. 1-8.

<sup>2</sup> Circa 1126 B.C.

<sup>3</sup> BREASTED, *Ancient Records*, Vol. IV, p. 512.

<sup>4</sup> SPIEGELBERG, *Zwei Beiträge zur Geschichte und Topographie der Thebanischen Necropolis*, pp. 1 ff.

<sup>5</sup> SPIEGELBERG and NEWBERRY, *Theban Necropolis*, 1898-9, pp. 6 ff.; the word "west," p. 6, line 7, is a mistake for north.

Pai-nezem, as High Priest of Amen, under the reign of Pa-seb-kha-nnu I, "year 6, fourth month of the second season, day 5," caused the burial of Amenhetep to be renewed, or reinterred (*lit.* "to repeat the burial of")<sup>1</sup>. Another inscription upon the mummy records a reinterment, about thirty years later, in the reign of Pai-nezem (I), who as King, "year 16, fourth month of the second season, day 11," caused his son Masabaret, then High Priest, to reinter Amenhetep I<sup>2</sup>. Again we find, after a lapse of nearly a century, through similar dockets upon the coffins of Rameses I and II, dated in the "year 16, fourth month of the second season, day 17," of Si-amun, that Amenhetep I then rested in the tomb of Queen Inhapi "which is in The-Great-Place!"

The first of these records, that of Pa-seb-kha-nnu I, may relate to a reinstatement of the burial of Amenhetep in his original tomb, after violation by robbers similar to that which occurred in the case of the burial of Thothmes IV, and which is recorded in his tomb by Hor-em-heb<sup>3</sup>; whilst the second record, under Pai-nezem I, may refer to the removal of the king and his reinterment in a safer place, namely the tomb of Inhapi, wherein two separate inscriptions of the time of Si-amun represent him as then resting.

From inscriptions upon the coffins of Seti I and Rameses II dated in the tenth year of Pa-seb-kha-nnu II, both these monarchs were brought to the "Eternal-House-of-Amenhetep!" Whether these inscriptions refer to the last resting-place of Amenhetep I, or to his tomb discovered by Lord CARNARVON, or to the tombs of either Amenhetep II or III, I fear we shall never be able to ascertain.

In 1881, nearly three thousand years after the making of the above ancient records, the mummy of Amenhetep I was discovered among other royal mummies in the Royal Cache of Deir el-Bahari. M. MASPERO and Dr ELLIOT SMITH describe it as follows:—

"The wrappings of this mummy are in such perfect condition, with garlands in position, that M. MASPERO decided to let it remain untouched. It was already rewrapped twice—by the Priest-king Pai-nezem and his son Masaharet."<sup>4</sup>

"La momie mesure 1 m. 65 cent. de longueur. Elle est revêtue d'une toile orange<sup>5</sup>, maintenue par des branches de toile ordinaire. Elle porte un masqué en bois et carton peint, identique au masque de cercueil. Elle est couverte de la tête aux pieds de guirlandes de fleurs rouges, jaunes et bleues, parmi lesquelles le Dr Schweinfurth a reconnu le *Delphinium orientale*, la *Sesbania aegyptiaca*, l'*Acacia nilotica*, le *Carmanthus tinctorius*. Une guêpe, attirée par l'odeur, était entrée dans le cercueil: enfermée par hasard, elle s'y est conservée intacte et nous a fourni un exemple probablement unique d'une momie de guêpe. Il aurait été désirable de déshabiller Amenhotep comme les autres rois; les deux restaurations dont il a été l'objet ont dû laisser des traces dans le maillot, probablement une ou plusieurs inscriptions en hiéroglyphe, mentionnant des dates nouvelles. Toutefois l'aspect que la momie présente actuellement sous ses

<sup>1</sup> Circa 1080 B.C.

<sup>2</sup> BREASTED, *op. cit.*, Vol. IV, p. 638.

<sup>3</sup> BREASTED, *op. cit.*, Vol. IV, p. 647.

<sup>4</sup> BREASTED, *op. cit.*, Vol. IV, pp. 665-7.

<sup>5</sup> CARTER and NEWBERRY, *Tomb of Thothmes IV* (Theo. M. Davis' Excavations), pp. xxxiii-iv.

<sup>6</sup> BREASTED, *op. cit.*, Vol. IV, pp. 691-2.

<sup>7</sup> G. ELLIOT SMITH, *The Royal Mummies*, No. 61058, p. 18.

<sup>8</sup> Peculiar to mummy wrappings of the XXth Dynasty and afterwards.

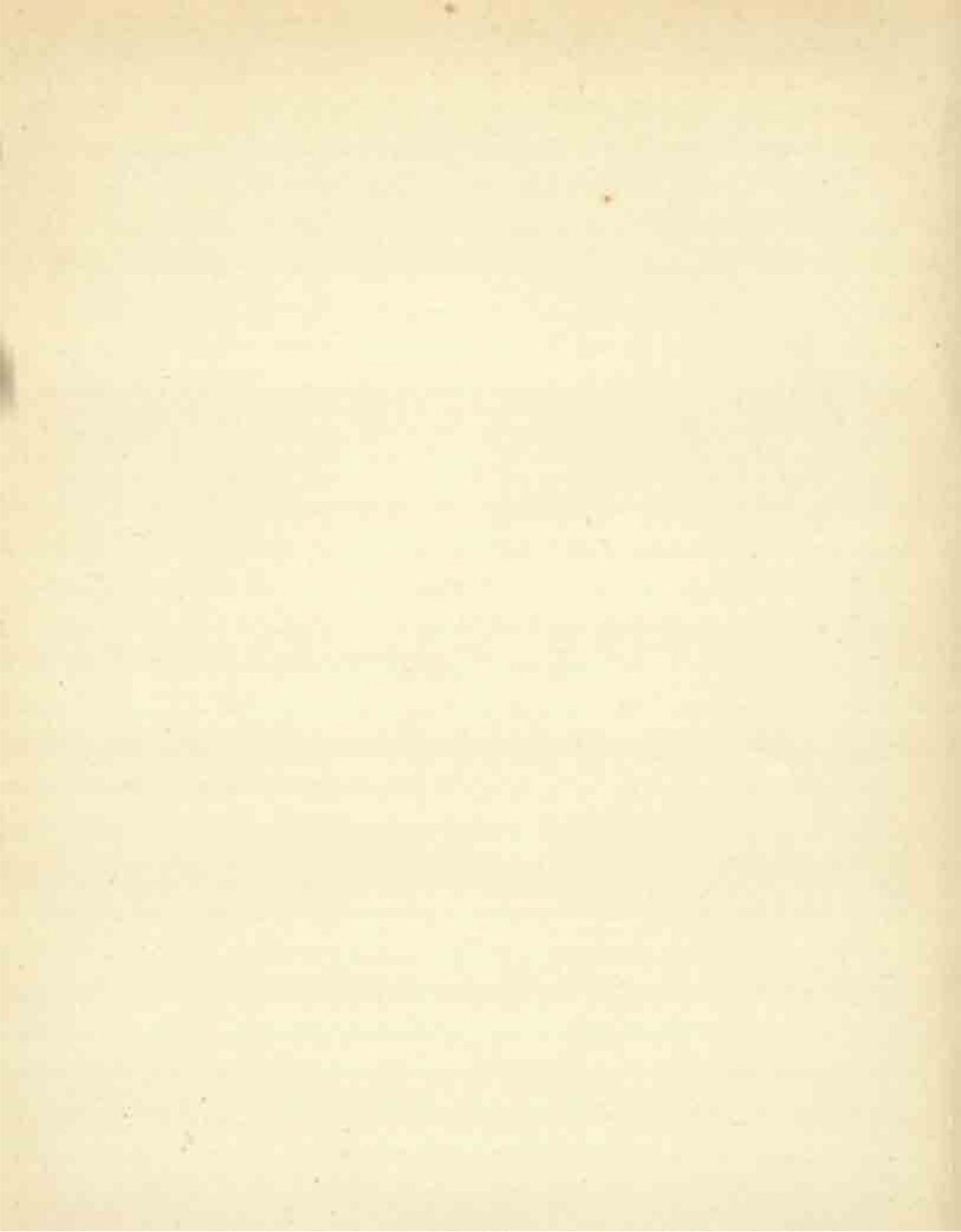


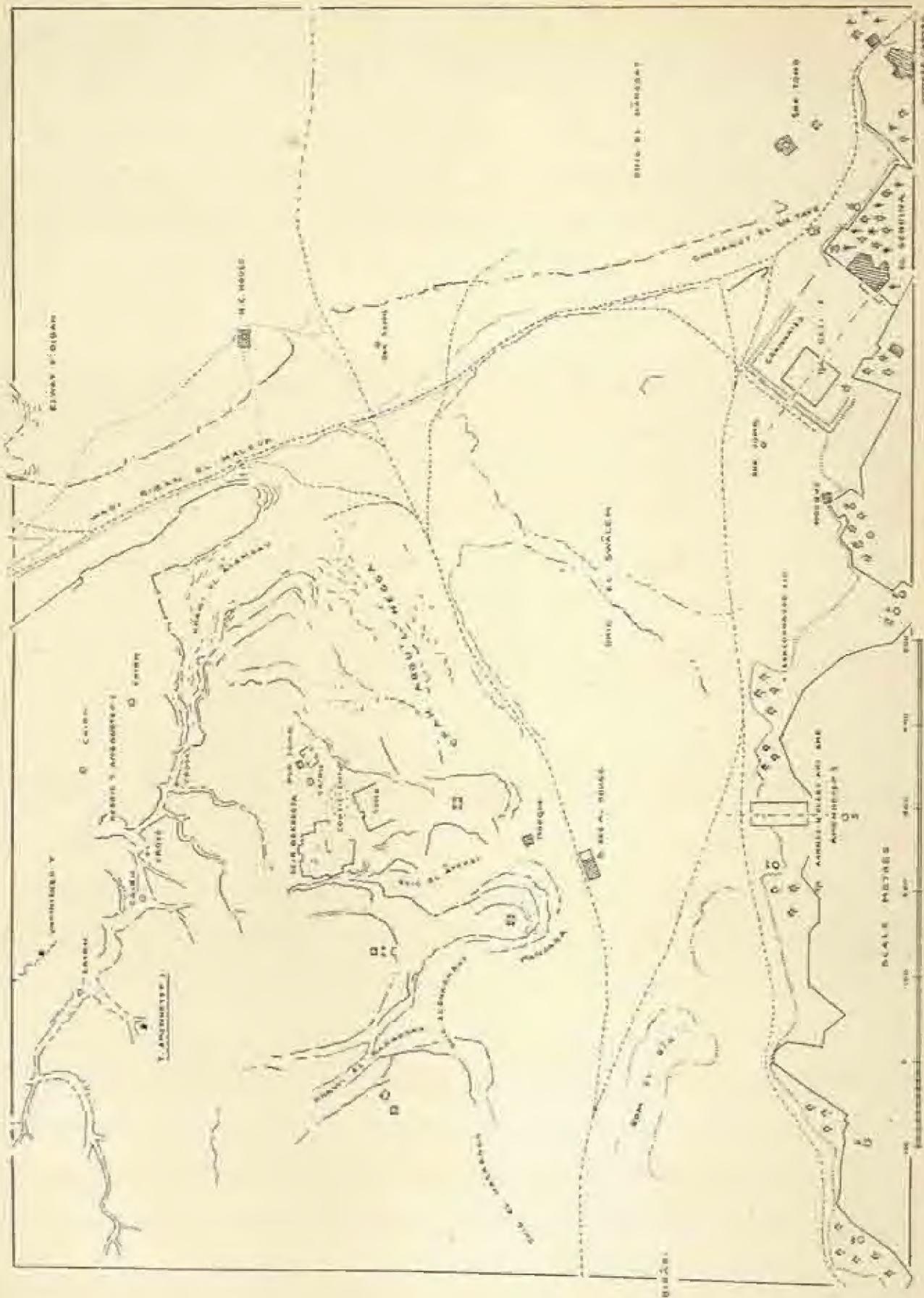
HEAD OF A BASALT STATUETTE  
representing the Queen Aahmes-nefert-ari (?)



ENTRANCE TO THE TOMB OF AMENHETEP I







Sketch Map of the Northern end of the Theban Necropolis.

guirlandes est si joli que j'ai éprouvé quelque scrupule à la dérouler, tandis qu'elle est encore dans sa nouveauté!'

M. DARESSY describes the coffin as: "Bois de cèdre... cercueil donné au Roi Aménophis Ier, mais qui n'avait été fait pour lui. La cuve est en bois naturel, sauf la tête qui est noire avec lignes jaunes; la tranche et l'intérieur sont enduits de bitume. En regardant de près on s'aperçoit que la cuve a été lavée et grattée: vers les épaules étaient peint des ouars à sourcils gravés, posés sur un édicule à porte rouge. Le reste de parois latérales était divisé en quatre tableaux renfermant chacun une divinité debout, à tête humaine, à chair rouge, portant un corselet noir, séparés par des colonnes d'inscriptions, dont la plus lisible ne donne que ...; le personnage, qui était  et  se nommait ."

Further, he states the coffin to be: "de la XIX<sup>e</sup> dynastie, décoré à nouveau sous la XXI<sup>e</sup>."

The tomb, carefully hidden, is situated on the plateau above the foot-hills of Drah Abou'l Negga, at the head of a small lateral valley of the ravine that lies in the extreme northern end of that part of the Theban Necropolis (see Pl. XIX). In fact it is 18 degrees west of the axis (M.N.) of the chapel mentioned above, and eight hundred metres from it; which establishes the truth of the statement as to its position given in the Abbott Papyrus, in so far as it is approximately north of the chapel. The entrance was secreted under a huge boulder (see Pl. XVIII, bottom), and a unique feature is that the *débris* coming from its excavation was removed in its entirety to a considerable distance away, and hidden in a depression in the ravine below. Thus when the tomb was sealed up there could have been practically no visible indication of its existence.

The plan of the tomb (see Pl. XX), which is the prototype of the Eighteenth Dynasty tombs in the Valley of the Tombs of the Kings, viz. the hypogea of Thothmes III and IV, Amenhetep II and III, is of the following design:—A deep Entrance Pit, having its mouth secreted under a huge boulder, descends to the entrance of a long First Gallery. This gallery, which rather more than half way along its length has a chamber on the one side and a niche upon the other, ends in a doorway directly over a Protective Well of considerable depth. The Protective Well, diminishing in size as it descends, has two roughly cut chambers at the bottom<sup>2</sup>. Cut in the further (inner) wall of the Protective Well, opposite and slightly higher than the doorway of the First Gallery, is the opening<sup>3</sup> to a Second Gallery which leads directly into the Sepulchral Hall. The Sepulchral Hall, which is of large dimensions, is rectangular in shape and has its low roof supported by two square pillars arranged longitudinally along its axis (110 W. of M.N.). This hall, as will be seen from the plan, was at

<sup>1</sup> MASPERO, *Momies Royales de Deir el Bahari*, p. 537.

<sup>2</sup> DARESSY, *Cercueils des Caskets Royaux*, No. 61003, pp. 7, 8.

<sup>3</sup> These chambers might be said to form a sort of false tomb, as, up to the present day, in none of the Royal tombs of this type has any evidence been found that these chambers were intended for use, either for burial purposes or to contain part of the tomb equipment. The well itself was certainly for protective purposes, and for that reason I have named it "Protective Well."

<sup>4</sup> This opening or doorway was intended to be closed and concealed after the burial was completed, as has been proved to us in later tombs of the type.

first made only half its present size, and had only one pillar, which was in the centre; afterwards it was increased to double its size, a second, additional, pillar being left. This alteration was no doubt contemporaneous with the construction of the tomb. The irregularities in the cutting of the galleries and chambers are mostly due to the poor quality of the rock in which the tomb is hewn, and also to the custom, not uncommon among the ancient masons, of utilizing whenever possible the natural surfaces formed by the fissures in the rock. At the bottom of the Entrance Pit was a large rock covering the doorway of the First Gallery.

As the Abbott Papyrus, in the particular record of this tomb, specifies its measurement as "120 cubits," I give below the actual dimensions of the tomb both in metres and in the ancient cubits. The measurements given take the line, marked red upon the plan, that one must necessarily traverse to gain access to the extreme end of the tomb.

For the (Royal) cubit I have taken the mean measurement, 52·310 cm.<sup>1</sup>, of the three examples now in the Cairo, Turin and Liverpool museums.

	Metres	Cubits	Palms	Digits
Entrance Pit, depth .....	0·00	=	17	1 1·7
First Gallery, length .....	13·30	=	25	2 3·9
Protective Well, descent.....	10·20	=	19	3 2·1
Protective Well, ascent .....	10·50	=	20	0 2·0
Second Gallery, length .....	7·60	=	14	3 2·8
Sepulchral Hall, length .....	12·20	=	23	2 1·0
Total.....	62·80	=	120	0 1·5

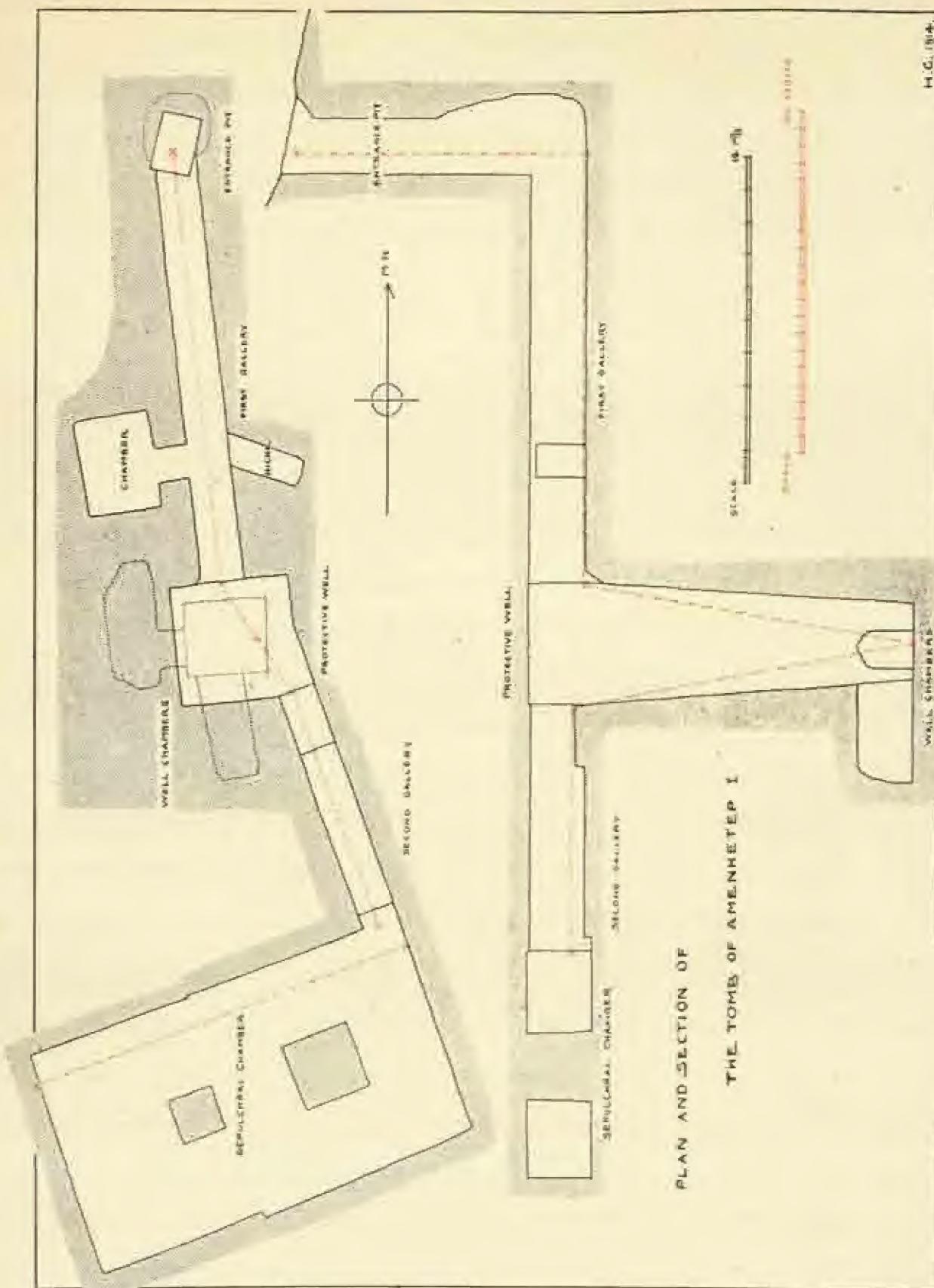
The slight difference between the ancient record and my measurements could easily occur through the irregularities in the cutting of the tomb.

Such accuracy of measurement as is revealed in the ancient document gives reason to suppose that the description of this tomb was taken from some record in the State archives, and not simply from the evidence given by the inspectors of Rameses IX, who appear merely to give the condition in which they found it. Also, if the inspectors found it intact—a condition probably easily seen from the exterior—it is questionable whether they would have gone so far as to carry out the elaborate process of reopening it, or would have taken such careful measurements of its interior structure as the above specification is seen to require.

An objection might be raised as to the double measurement of the Protective Well, both in its descent and in its ascent. But, if the second dimension (ascent) is not included, then our measurements end at the bottom of the well; and if neither are taken into consideration and only the distance across the well, as over an imaginary bridge, then a very important item in the tomb structure is omitted. As I have already said, the above measurements are the line one traverses to gain access to the innermost part of the tomb, and it must be remembered that ingress into these tombs was made anciently by means of a rope (for descent) on the near side, and a second rope (for ascent) on the far side of the Protective Well<sup>2</sup>.

<sup>1</sup> Cubit = 52·310 cm., palm = 7·47285 cm., digit = 1·86321 cm., 1 palm being 1/7 and 1 digit 1/28 of a cubit.

<sup>2</sup> See tombs of: Thothmes III. (LÖSER, *Bulletin de l'Institut Égyptien*, 1899, p. 93); Amenhotep II (LÖSER, *op. cit.*, p. 160); Thothmes IV (CARTER and NEWBERRY, *Tomb of Thothmes IV*, Theo. M. Davis'



## The Tomb of Amenhetep I.



Unfortunately the modern native tomb-plunderers had already burrowed into this tomb; and in recent years small fragments of its funeral equipment appeared from time to time in the local antiquity dealers' shops<sup>1</sup>.

Lord CARNARVON discovered the tomb to be three parts full of detritus from the desert, the Protective Well being filled to the level of the galleries and the Sepulchral Hall being the only part that was at all clear. How all this rubbish got further than the Entrance Pit and the commencement of the First Gallery is one of the problems yet to be solved. The contents of the inner chambers had at one time been burnt, as the smoke-blackened ceilings and walls make manifest; but this firing seems not to have occurred until after the original robbery. This I deduce from the three following facts: (1) The walls are not blackened by smoke below the surface line of the extraneous rubbish; (2) masses of burnt intrusive coffins of late date were found upon the floor of the Sepulchral Hall; (3) it was only under these burnt ashes that any objects belonging to the Royal burial, namely a few fragments of stone vessels, showed traces of burning.

The burnt coffins that we found, as well as other intrusive objects mentioned below, are clear proofs of usurpation and successive plundering. The few parts of the painted coffins rescued from the burnt débris were of a type of burial characteristic of the period of Osorkon I and later.

Since the last violation in dynastic times the tomb was seemingly left exposed to the wear and tear of ages, until nature in the course of many centuries gradually covered it.

All that was left of the king's funereal equipment was the débris of broken stone vessels and statuettes wrought in alabaster, green feldspar, yellow limestone, red conglomerate, serpentine, and basalt. These fragments were scattered in the valley outside the entrance of the tomb, and on the floors of the interior as far as the end of the Sepulchral Hall. They were broken with such method that hardly a fragment larger than fifteen cm. square was found among them, though apparently many of the vases had been of large dimensions. Again, to our misfortune, after sifting each basket of

Excavations, p. ix); and Seti I, which last-named has a protective well (BALZONI, *Narrative of the Operations and Recent Discoveries in Egypt and Nubia*, 1820, pp. 220 ff.). I believe that in the case of the larger hypoges of this type which contain heavy stone sarcophagi the sarcophagus was placed in the sepulchral hall before the protective well was excavated to its eventual and intended depth. In the same way the huge sarcophagi of the pyramids of the Old Kingdom were placed in the innermost chambers before the completion of the pyramid's construction. This is conclusively proved by the fact that the finished passages leading to these sarcophagus chambers are often of narrower measurement than the sarcophagi to which they lead. In the case of the Royal tombs of the New Empire, the construction of a bridge to pass over the workmen excavating the inner passages and chambers and the heavy sarcophagus would be an elaborate and unnecessary undertaking. The paintings of the upper part of the walls of these wells, in the decorated examples, end with a dado at the level where the floor would be if the well had not been made.

<sup>1</sup> I believe M. SEROUR DE BRICCI obtained a fragment of the "Book of the Dead" belonging to this king. I procured two fragments of alabaster cases similar to those found in the tomb by Lord CARNARVON, and bearing the names of King Amenhetep I and Queen Aahmes-nefert-ari; these latter fragments are in the Theo. M. Davis Collection. During the season of 1912-13 the beautiful head fragments in Pl. XVII was purchased in Cairo. Small fragments belonging to its headdress were depicted in Pl. XVII was purchased in Cairo. Small fragments belonging to its headdress were found in this tomb by Lord CARNARVON, which enables us to identify not only its provenance but also the king it portrays.

rubbish, not more than one third of the total number of pieces was found to be present; thus were defeated all hopes of piecing them together and reconstructing them.

Among the fifty-four individual vases that could be recognized from the fragments classified and fitted together (for types, see Pl. XXII, figs. 1—17) twenty of alabaster and one of green feldspar were inscribed. One of these bears the cartouche of a Hyksos king 'Aa-user-ra Apepi, together with his daughter, an otherwise unknown princess, named Herath<sup>1</sup> (Pl. XXI, Fig. 1). Three bear the names of King Neb-pehti-m Aahmes<sup>2</sup> (Pl. XXI, Figs. 2—4), one of them gives also the name of a (?) queen that is unfortunately so damaged that only the first sign  is preserved<sup>3</sup> (Pl. XXI, Fig. 2). Eight bear the name of Queen Aahmes-nefert-ari (Pl. XXI, Figs. 5—9). The remaining nine bear the prenomen and nomen of the King Zeser-ka-s-ra Amenhotep (Pl. XXI, Figs. 10—13).

The percentage of vases bearing the name of Queen Aahmes-nefert-ari, being almost as great as that of those bearing the name of Amenhotep I, may possibly indicate that she also was buried in this tomb; and indeed, when the discovery of the tomb was first made, I was under the impression that it belonged to the queen<sup>4</sup>.

Could the appearance of Apepi's name here indicate some kind of relationship between the Hyksos and Theban Royal Families<sup>5</sup>?

<sup>1</sup> The lower part of the cartouche is slightly damaged; another possible reading might be



<sup>2</sup> No. 4 is of interest as commemorating a hunting expedition (?) in Syria: ".....[in] Kadmu (Semitic name for 'East') disporting himself (*shmib ib*)...in the land of (?),....."—Ed.

<sup>3</sup> The inscription on the right hand side of the names of Aahmes I may with probability be

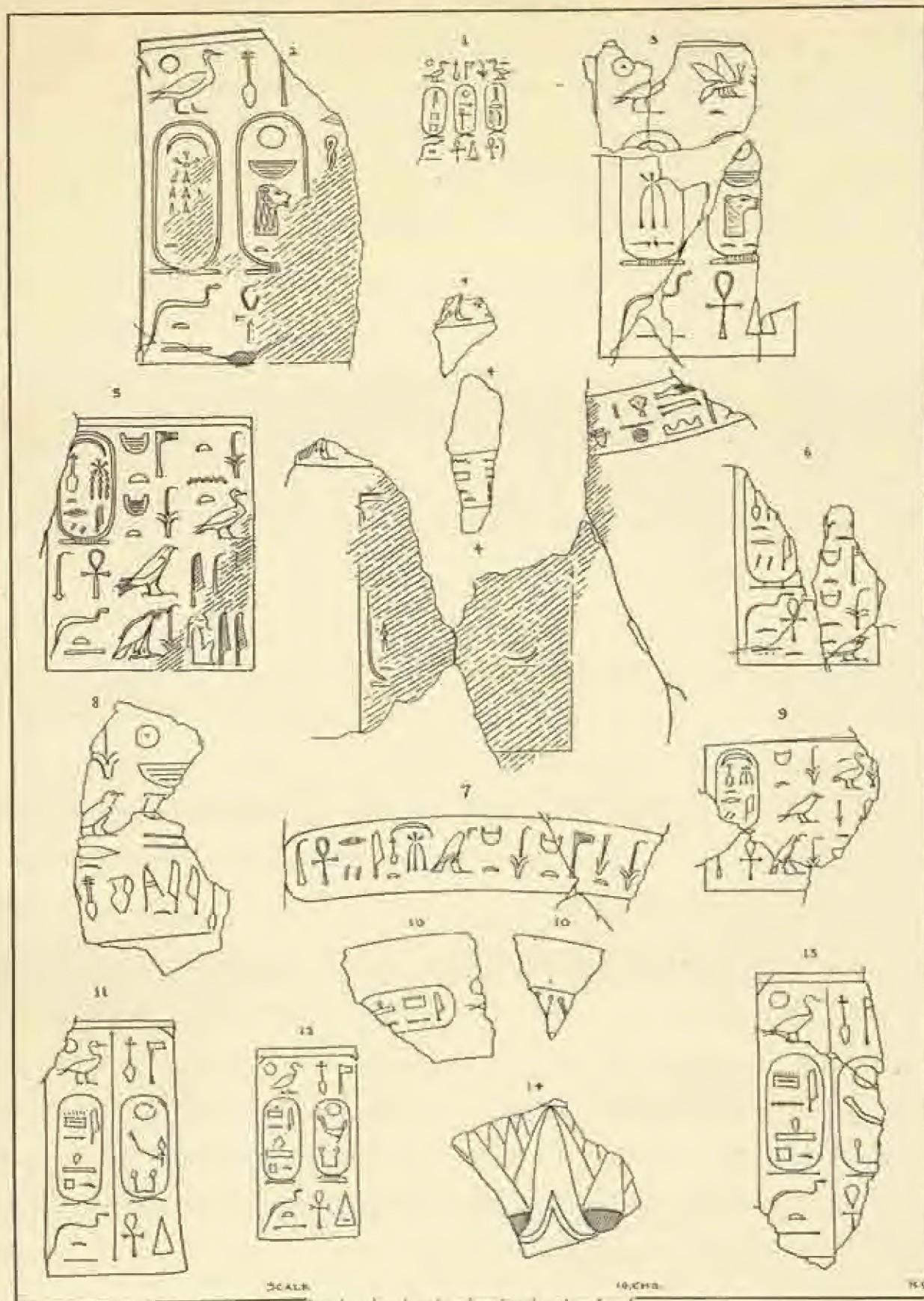


restored thus:  As the initial letter of the name is  it would be tempting to restore it as

the name of Apepi's daughter occurring on the fragment, Pl. XXI, Fig. 1. On the other hand it might well be the beginning of the title  "mistress of the two lands."—I am indebted to Prof. NEWHERRY for this note.

<sup>4</sup> It should be noted that their mortuary chapels were one monument, and further that the Sepulchral Hall was enlarged to double the size. "In the Theban necropolis Amenhotep I and the queen Nefriiri have become the favourite local divinities, and a man who accidentally thrust his hand into a hole where lay a large serpent, without being bitten, immediately erected a tablet to tell the tale and express his gratitude to Amenhotep, whose power alone had saved him (Turin Stela). Another had in some way transgressed against a goddess who, according to popular belief, resided in a hill-top of the same necropolis, and when at last the goddess released him from the power of the disease with which she was afflicting him, he erected a similar memorial in her honour." (BAGASCO, *A History of Egypt*, p. 450.)

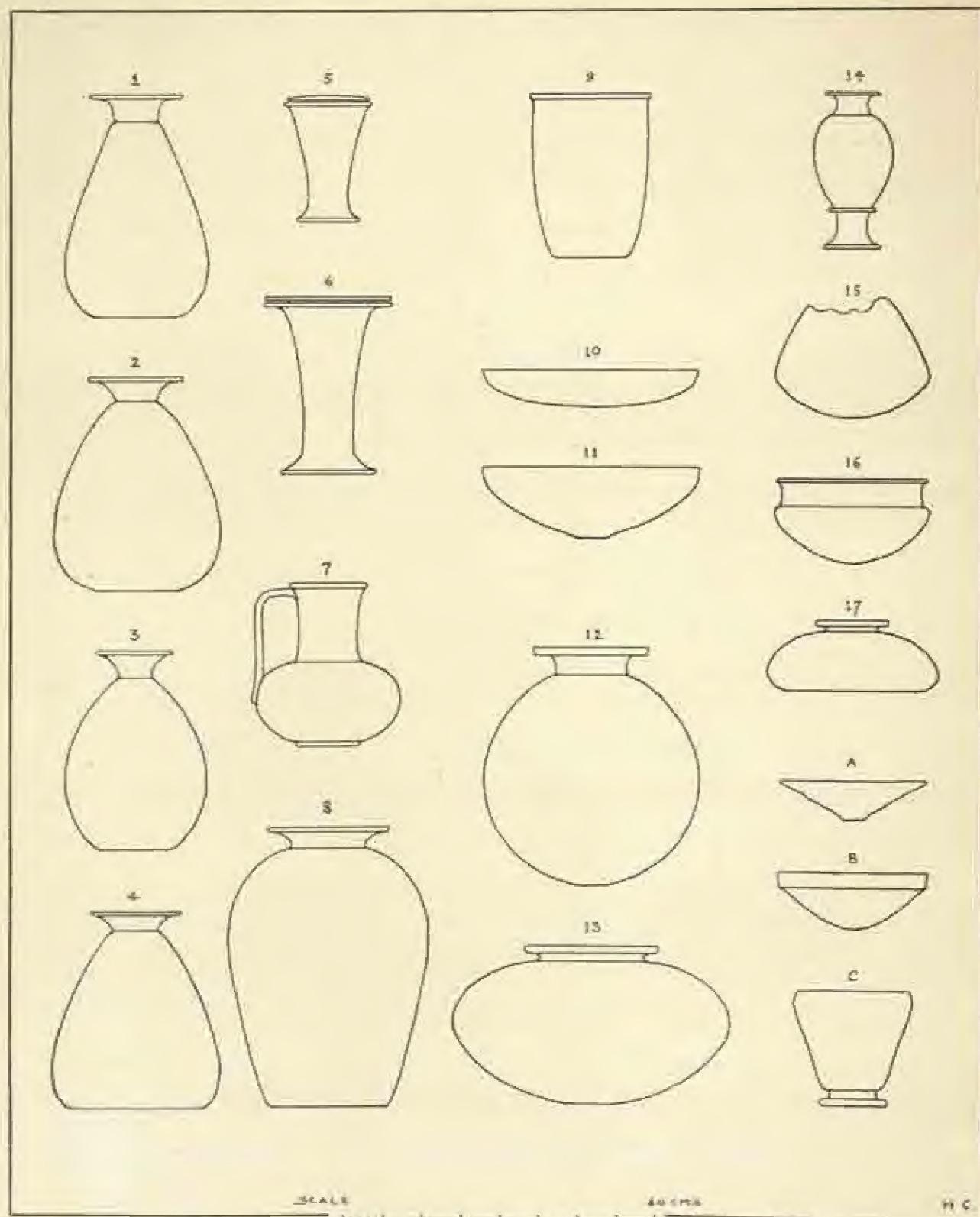
<sup>5</sup> It has been suggested to me that the fragment bearing the Hyksos king's name had accidentally got into this tomb. But why this fragment should be accidental any more than any other fragment found here I fail to see. In most of the Royal sepulchres discovered in the Theban necropolis, among the many objects discovered one sees objects bearing the names of relatives and ancestors of the monarch in whose tomb they are found.



Inscriptions incised upon the Stone Vessels. Tomb of Amenhetep I.







Forms of stone and pottery vessels. Tomb of Amenhetep I.

Figs. 1 to 13 on Pl. XXI give the types and variants of the inscriptions incised upon the stone vessels. The fragment, Fig. 14, is of a decorated alabaster vase with lotus flowers engraved upon it, the calices of which were inlaid in faience<sup>1</sup>. A few fragments of alabaster belonged to receptacles for provisions in the form of ducks<sup>2</sup>.

A small number of basalt fragments of two statuettes, presumably of the king and queen, to judge from the fashion of the headdresses, reveal only their exquisite workmanship; the most complete piece that could be restored is depicted in Pl. XVIII, top.

Bronze eye-brows, eye-sockets, pieces of lapis-lazuli inlay, and decayed wood, found at the bottom of the Protective Well, substantiate the original existence in the tomb of large inlaid coffins, perhaps the outer-shells of the Royal burials.

Among thousands of potsherds I was able only to restore and identify as belonging to the Early Eighteenth Dynasty the three forms A, B and C<sup>3</sup> given in Pl. XXII. The remainder were so broken and mixed with those of the usurpers that restoration and identification would be of great uncertainty.

With regard to the intrusive objects, as I have already mentioned, the fragments of the burnt burials were of the period of the Twenty-second Dynasty and later. The objects saved from fire, and extricated from the rubbish, were:—

A large blue-paste heart-scarab, uninscribed, with peculiar hollow in the back. It appears once to have had gold mountings, but all such embellishment is now missing.

Several parts of winged scarabs, of blue faience and paste, and of quite poor quality.

A small copper pectoral-plaque, with eyelets for suspension, covered with thin gold foil, and having the usat-eye engraved upon it.

Two scarabs, in diorite and unburnt steatite, unpierced and uninscribed.

A head-rest as an amulet, in haematite.

Two small Sekhmets as amulets, in blue faience.

Numbers of pottery shawabti-figures, of very rough workmanship.

An eye-shaped seal (decayed), blue faience, bearing an unintelligible cartouche; see accompanying figure.



#### NOTE UPON THE MORTUARY CHAPEL OF AMENHETEP I AND AAHMES-NEFERT-ARI.

The two so-called Mortuary Chapels of Aahmes-nefert-ari and Amenhotep I, identified as "Ta-men-ast"<sup>4</sup> and "The-House-of-Zeser-ka-ra-on-the-West-of-Thebes"<sup>5</sup> by Professors

<sup>1</sup> For form cf. Pl. XXII, Fig. 16.

<sup>2</sup> Cf. DARESSY, *Fouilles de la Vallée des Rois*, Tombe d'Aménophis II, No. 24696; and in other Royal tombs.

<sup>3</sup> Form C. was found in the tomb of Hatshepsut (NAVILLE and CARTER, *Tomb of Queen Hatshepsut*, Theo. M. Davis' Excavations, Pl. XIV, Fig. 9).

<sup>4</sup> SPIEGELBERG and NEWBERRY, *Theban Necropolis*, p. 7.

<sup>5</sup> SPIEGELBERG, *Zwei Beiträge zur Geschichte und Topographie der Thebanischen Necropolis*, pp. 1 ff.

SPIEGELBERG and NEWBERRY, have one and the same axis, are of one continuous plan, and form one building<sup>1</sup>; see plan, Pl. XXIII<sup>2</sup>. The first part, to the north, said to be that of Aahmes-nefert-ari, is built upon the desert, while the second portion to the south, said to be that of Amenhetep I, encroaches upon the cultivated land. This is but the natural sequence in the building of such monuments. We have a similar example in Queen Hatshesut's Mortuary Chapel "Zeser-Zeseru" in "Zesert" (Deir el-Bahri), where the first portion, under the cliff, is dedicated to Thothmes I and Thothmes II, and the outer and lower terraces to Hatshesut and Thothmes III—the whole being built by the queen. We also have an instance of Aahmes-nefert-ari and Amenhetep I building under their joint names in the discovery, made by Lord CARNARVON, of a large wall in the Deir el-Bahri valley, where stamped bricks bear the cartouches of the king and queen<sup>3</sup>.

The existing remains of the Mortuary Chapel of Amenhetep I and Aahmes-nefert-ari are of limestone and sandstone, but there is reason to believe that most of the sandstone, if not all, belongs to later additions and restorations. The foundations, the bases of columns, and such part of the walls as appears to be original are all of the former material. The screen between the columns facing the shrine(?) in the northern portion is certainly of late construction and design. So fragmentary, however, are these remains, which since the excavation have again suffered not only from the cultivator, but also through the moisture from the annual inundation (the limestone has often scaled into an almost unrecognizable mass), that one hardly dares to distinguish exactly what is original and what is additional construction. Here and there straight-joints—sandstone masonry built against limestone masonry, which is the more easily detected evidence of later additions—are visible to the careful observer<sup>4</sup>. But few parts of the building stand above the foundation level, and those are not more than sixty centimetres in height.

That the denominations "The-House-of-Amenhetep-of-the-Garden," "The-House-of-Zeser-ka-ra-on-the-West-of-Thebes," and "The-House-of-Amenhetep-of-the-Court," refer to one building, the monument in question, is in my opinion clear. I suggest, therefore, that the name "Men-ast" or "Ta-men-ast" refers to the sanctuary dedicated to the queen, or, in other words, to the northern portion of the building.

<sup>1</sup> An inscription on a stela in the Museum of Turin mentions both these chapels as being together (SPIEGELBERG and NEWBERRY, *op. cit.*, p. 4).

<sup>2</sup> This plan shows what now exists of the parts exposed by SPIEGELBERG and NEWBERRY. The orientation upon Pl. III (plan of Aahmes-nefert-ari's Temple) of their publication is incorrect, the true axis being  $\frac{1}{2}$ -degree from M.N.

<sup>3</sup> EARL OF CARNARVON and H. CARTER, *Five Years Exploration*, p. 28, Pls. XIX, XXVIII.

<sup>4</sup> The use of two kinds of stone was not an uncommon custom—especially among the earlier buildings—the sandstone generally being used to protect the limestone inner walls. E.g., the colonnades covering the sculptured limestone walls of the Mortuary Chapel of Mentuhetep at Deir el-Bahri.



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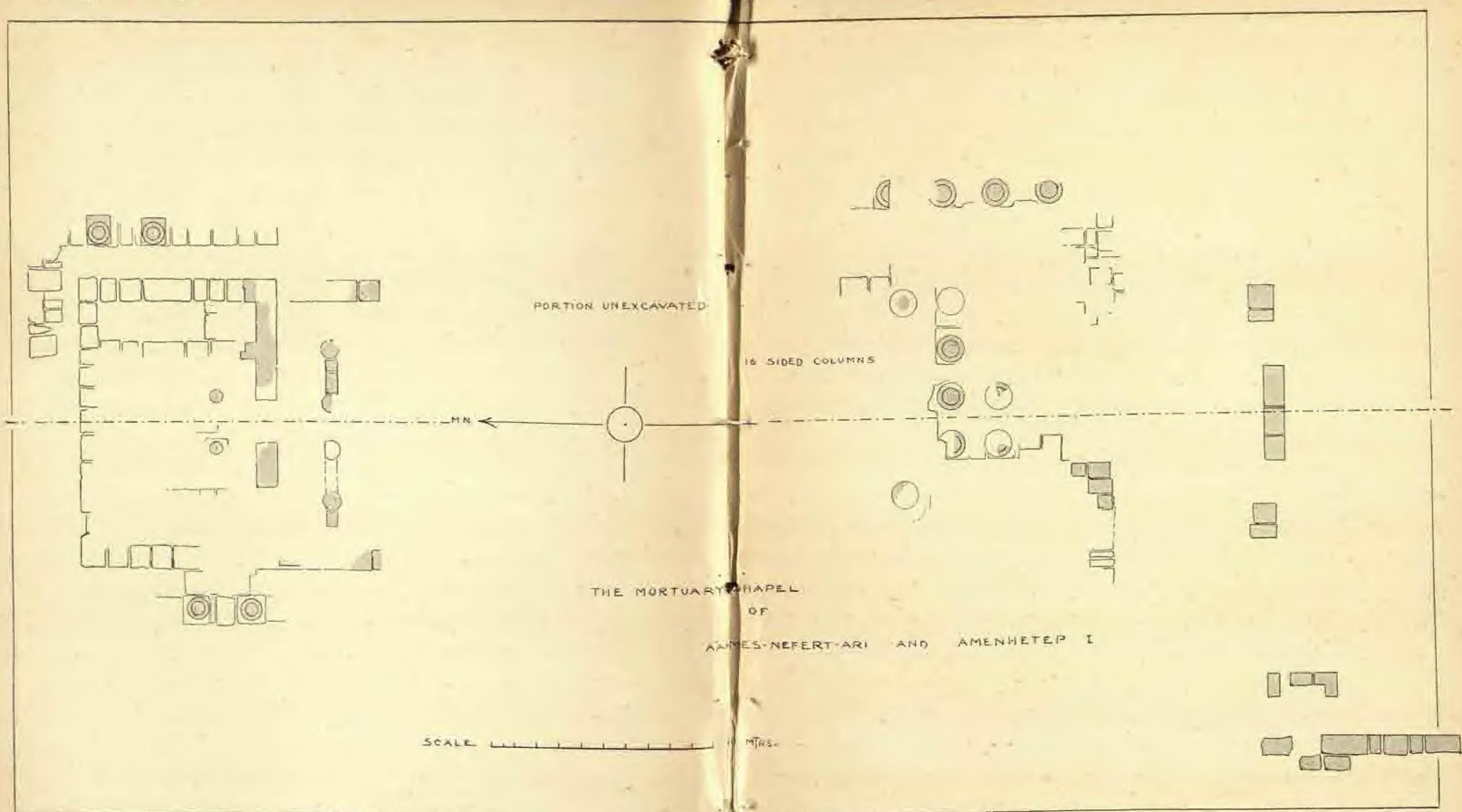
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PLAN OF THE MORTUARY CHAPEL





## MAP OF THE NILE HALFA TO SEMNEH

FIG. 1 GENERAL MAP 1:100,000 SHEIKH ASDEL GADER

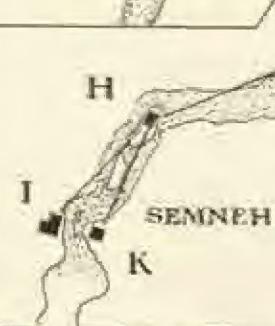
FIG. 2 MATUKA DISTRICT 1:50,000

FIG. 3 SEMNEH DISTRICT 1:50,000

FIG. 2



FIG. 1



## ANCIENT EGYPTIAN FRONTIER FORTRESSES

By SOMERS CLARKE, F.S.A.

### I. INTRODUCTORY.

THE Second Cataract, called the Baṭn el-Hagar (Belly of Stones), is one of the most desolate parts of the Nile Valley. As at the First Cataract, so at the Second a reef of hard rock crosses the valley, and through this the waters of the Nile force their way from south to north; but whereas the First Cataract is but a few miles in length, the Second extends for more than a hundred.

It is obvious that a geological barrier giving rise to a series of rapids is very likely to offer itself as a frontier. This has been the case with the First Cataract in early Egyptian history. The desolate nature of the region added to its defensive value: not only was the water-way difficult to traverse and therefore more easy to defend, but the road by land was inhospitable and dangerous for the passage of considerable numbers of people moving at the same time. As Egypt became more consolidated and powerful it extended itself towards the south, casting hungry eyes upon the regions of the Sūdān, whence came many commodities, including gold and slaves. The Second Cataract thus became a frontier both as a base for defence against the wild folk of the south, and as a point of departure for raids and wars of aggression.

The map (Pl. XXIV) which I have compiled, to the best of my ability, partly from the materials kindly supplied me by the Sūdān and Cairo Survey officials, and partly from observations made by me on the spot, may give, it is hoped, some idea of the general features of the country and of the way in which the Egyptian military architects availed themselves of the natural features. The best map of the cataract at Semna, which forms but an item in the Second Cataract, is that made by Dr BALL and is printed in the *Quarterly Journal of the Geological Society* for Feb. 7, 1913 (Vol. LIX); there is not to be found a more careful or exact cartographer than Dr BALL.

My map shows in Fig. 1 the course of the Nile from Semna to Halfa. It seeks to be little more than an easily-read diagram. Its scale ( $\frac{1}{150000}$ ) is so small that it is impossible to indicate even half the multitude of islands and rocks which crowd the northern end of the cataract, and which by their presence are the chief cause of its existence. On the other hand, it is hoped that the map may prove useful as indicating the relative positions of the various fortresses herein referred to. According to the scale which has been adopted the water-way of the Nile should be only half the width

shown; as I look on my map as no more than a conventional representation, I have taken the liberty here stated. As regards the distances from north to south no such liberties have been taken, but I fear there are many errors.

The various fortresses are marked in Fig. 1 by letters of the alphabet, thus making it more easy to describe their positions in relation to each other. Lines are also drawn showing the directions in which the garrisons in each fort could command the neighbourhood.

Fig. 2 gives what I have called the Matika district to a scale of  $\frac{1}{100000}$ , which is larger than the scale of Fig. 1. There are very many more rocks and islands than are here shown.

Fig. 3 gives the Semna district to a still larger scale,  $\frac{1}{50000}$ , showing clearly the near approach to each other of the eastern and western banks of the Nile, and the promontory on which the fortress of Semna el-Sharq is built.

To return to Fig. 1: the fortress at *A* (Bûhen) did not stand high, but the islands at the mouth of the cataract could be well seen. The ground rises rapidly west of *A* so that an outlook from it could easily be got<sup>1</sup>. *C* and *D* lie low down, indeed but little above water-level. *E*, however, stands in a commanding position on a cliff with unbroken views up, down, and across the valley. The great size of this fortress shows it to be second only to Semna. The fortress *F*, like *C* and *D*, is on an island and but little above the water. *G* is in a most commanding position and has an outlook up, down, and across the valley. It is probable that there is some fortress between *E* and *G* of which I have no knowledge. *H*, though on an island, stands high and could be in communication with *G*, *I*, and *K*. *K* is even better placed with regard to *G* and *H*.

It is to be observed that *A*, *E*, *G*, and *I* are all on the western bank of the river, and that *C*, *D*, *F*, and *H* are on islands. *K* alone is on the east bank, which all the way is extremely rocky, rugged, and desolate.

It will be well to give a reason why a string of fortresses such as are about to be described was established, and this I will endeavour to do, not in my own words or out of the empty wells of a pretended knowledge, but in the language of my good friend Dr E. A. W. BUDGE<sup>2</sup>. "We may now briefly summarise the various steps in the conquest of Nubia under the XIIIth Dynasty. Amenemhât I conquered the Mâatchau, Uamai, the Sitiu, and Heriu-shâ, and fixed his boundary near Korosko. Usertsen I conquered the four great tribes of the country, and fixed his boundary at Behen, or Wâdi Halfa, one hundred miles further to the south than his predecessor. He drew large quantities of tribute from the natives, and sent, among others, Ameni to bring gold to Egypt. He was perhaps the first king of Egypt to build a fort and found a town a few miles to the south of Korosko. The remains of both the fort and town were discovered in 1892 by Captain LYONS, R.E., who noticed on the rocks near several *graffiti* belonging to the XIth, XIIth and XIIIth Dynasties. These clearly indicate that the site was occupied by Egyptian officials under the Mentuhotep kings of the XIth Dynasty, and this being so we may assume that it was a centre of Sûdân trade of considerable importance. In the reign of Amenemhât II the officer Sa-Hathor went into Nubia

<sup>1</sup> For *B* in Figs. 1 and 2 see below p. 163.

<sup>2</sup> E. A. WALLIS BUDGE, *The Egyptian Sûdân: its History and Monuments*, London, 1907, Vol. 1, p. 553.

and began to work the gold mines of Heb by means of native labour, on behalf of the Egyptian Government. The young men dug out the ore, and the old men carried out the operations connected with the final stages of washing out the metal. Under Usertsen III, the Egyptian frontier on the south was moved to Semna, and an edict was passed forbidding any negro to pass north of that place except for purposes of business or embassy. For eleven years at least, i.e., from his eighth to his nineteenth year, this king carried on a series of wars, which resulted in the complete subjugation of the country. He built a line of forts, which were occupied by native garrisons under Egyptian officers, between Elephantine and Semna, and in many of them he placed temples; he appears to have established a fortified outpost about eighty miles south of Semna, in the neighbourhood of Gebel Dôsha. From a portion of a monument discovered by Prof. NAVILLE (*Bubastis*, Pl. 34) we learn that Userisen made a raid in a country called Huâ.

"Now a country called Huâ is mentioned in an inscription of a later period in connection with Punt, and if it be the same region it follows that he invaded the country on the western shore near the southern end of the Red Sea. If this be so, this king must have been absolute master of all the great trade routes of the Egyptian Sudan, as well as of all the gold mines throughout the country. Before Userisen's death arrangements were made for a systematic supply of gold for Egypt, and the caravans travelled on from fort to fort, bearing their precious loads to the old Egyptian frontier city of Elephantine in safety."

Since Dr BUDGE wrote the above the explorations of Dr George REISNER, working for the Harvard University Museum of Fine Arts, have thrown much light on the condition of things south of the Bañ el-Hagar and of the fortresses here described. At Kerma, which lies on the east bank of the Nile, nearly opposite to New Dongola, stand two great masses constructed of sun-dried bricks. Dr REISSNER's examination has shown one of these to be a temple, the other a fort. Near them lie great tombs, the resting-places of the Egyptian governors of the province. Inscribed fragments of statues were found, whereby it was possible to date one tomb to the early XIIth and another to the early XIIIth Dynasty. The largest of the tombs was seen to belong to the time of Senusret I, the occupant being a lord from Assiut, whose name is still to be read in the inscriptions of that place.

Grouping together these statements we learn how important were these fortresses: they had not only to hold in check the peoples of the South, but also to act in concert with the southern province as a base from which could be controlled the various trade routes, whether by water or by land. The grim desolation of the country must also have made it necessary that the fortresses should be well provided with stores. It would be out of place to give here the texts of the inscriptions relative to the above-mentioned events. They are for the most part well-known, and accessible to all those who are interested in the subject.

It may fairly be assumed that fortresses of importance already existed between the frontier at Elephantine and the Second Cataract before those in the Second Cataract were built. At the southern end of the island of Elephantine we still see great masses of crude brick walls; whether these may be, in part, the walls of the ancient fortress I would not venture to say. On the mainland and opposite the Nilometer there is a ridge of granite rock which has now, unfortunately, been deprived of its ancient air

of dignity and turned into a cockney garden; this runs back towards the east at right angles with the Nile. Here there still exists, more or less out of sight, a great mass of ancient brickwork, evidently belonging to massive walls. As we advance south of Aswān we observe several fortified places; and because the ruins now to be seen may in some cases belong to a date much later than the early Dynasties, we are not always justified by that fact in supposing that older structures might not be found, if the sites were carefully investigated.

The following is an imperfect list of the places of defence between Elephantine and the Second Cataract, most of them dating from the XIth and XIIth Dynasties:—

Koshtemna, or Ikkur.	Amada.
Sabagura.	Kaṣr Ibrim.
Kubān.	Armannā.
Korosko.	

In the Second Cataract, from Būhen to Semna, are the following places:—

Būhen. At the northern mouth of the cataract.

Mayanarti.

Dorgaynarti.

Matūka.

Dabnarti.

A fort on the west bank opposite Sarras, the present name of which I could not ascertain.

Uronarti, or, as it is called in Arabic, Gazirat el-Malik<sup>1</sup>.

Semna el-Sharq (east).

Semna el-Gharb (west).

Probably there are traces of other strong places yet further south.

With many Nubian places it is difficult to obtain any definite information as to the names by which they are now locally known, and so too it is with Semna. BURCKHARDT<sup>2</sup>, who visited the place in 1813, writes the name as Samna; he does not give a separate name for the ruins on the east and on the west. LEPSIUS is, I think, the first who tells us that Semna is on the west and Kumma on the east<sup>3</sup>. Other travellers spell the names Semneh and Kumme; others again write the latter name Kumna. The maps issued from the Survey Department write Semna and Kumna; the more recent of the two maps I possess is dated 1911. At the time of my visit in 1898, I inquired as carefully as I could—one of my servants was from Sarras, which is but a short way off—and was informed that the places were called Semna el-Sharq and Semna el-Gharb; nothing was known of the names Kumma or Kumme. It is really to be regretted that more care is not taken when the surveys are made. On one map is to be found the legend "ruins of Gasaka." "Kisa" is the Berberine word for a ruin, plural "Kisaka"; so we can easily conjecture how the surveyor lit on his place-name "Gasaka." One is in the same trouble with the names of islands. It is

<sup>1</sup> "Uru" is a chief or head man in the Berberine tongue.

<sup>2</sup> *Travels in Nubia*, London, John Murray, 1822, pp. 74, 75.

<sup>3</sup> LEPSIUS, *Denkmäler*, Part I, Pl. III.

<sup>4</sup> Is "Kisa" derived from Kinyas, a church? Most of the ruins we find are those of ancient churches.

a matter of common knowledge to those who make but a few investigations from Aswān southward that amongst the Barabra the word "Arti" signifies "an island," and yet we read "Hamanarti Island," "Kessewarti Island," "Gerrendnarti Island"; and as for identifying any one of these in the Second Cataract map with the names as told to me I was never successful.

A study of the map (Pl. XXIV) shows how the fortresses lie in relation one to another. I venture to think, as I have already said, that between Matūka (*E*) and the small fort *G* there may lie one or two others. There is almost certainly a ruined fort on one of the intermediate islands, but to make a proper archaeological survey of this part of the cataract would be quite a little expedition in itself. The absence of boats is alone a serious difficulty, not to mention the dangerously swift current, and the uncompromising lumps of rock on which the traveller's boat may come to grief. My efforts to visit a number of the islands have also failed because of deficiency of water.

The nearest forts to *A*, going southward, are on islands at *C* (Mayanarti) and *D* (Dergaynarti)<sup>1</sup>. Both lie quite low down, but at *E* (Matūka) stands an imposing fortress high above the river on the rocky western bank<sup>2</sup>. From this place the river is well commanded both north and south, whilst a well-marked road passes close by on the west. On an island just below *E* is a large fortress, *F* (Dabnarti). Between *E* and *F* the river would, at this point, be well under observation.

Between *F* and *G* BURCKHARDT saw an island with a ruined castle on it, and gives the name as Escot; on the map of 1911 I find an island Askut. At *G* stands, on the west bank and in a very commanding position, a small fortress. At *H* is Uronarti or Gazirat el-Malik<sup>3</sup> (Island of the King) with a fortress high on the top. At *I* and *K* are the very important fortresses of Semna el-Gharb and Semna el-Sharq. From *H* the points *I*, *K*, and *G* are well in sight, and if at Escot there be a fort it would probably be in easy signalling communication with *G* and so with *H*, *I*, and *K*.

In Fig. 3 of Pl. XXIV the part of the Nile from Semna to the northern extremity of the Gazirat el-Malik is shown to a scale of  $\frac{1}{100,000}$ . A study of this map demonstrates to us at once how remarkably well-adapted the position was for defensive works. The reef of rocks forming the rapids and the promontory of Semna el-Sharq are well brought out. At a very short distance to the north rapids exist on either side of the head of the island Kigingar, as I know to my cost, for I was nearly sucked over them by the stiff current. Rapids also occur a little way to the south of Semna.

## II. CHARACTERISTICS OF A FORTRESS

From times, who can say how remote, the advantage of surrounding a fortress with a ditch (unless it could be placed on a more or less inaccessible peak) was realized. Many parts of Egypt are peculiarly unsuited to this method of defence; during several months of the year the ditch would be overflowing; during others it would be dry. The Egyptian did not, however, fail to make use of the dry ditch, as we shall see later.

<sup>1</sup> See pp. 164—165.

<sup>2</sup> See pp. 165—166.

<sup>3</sup> Also called Uronarti, as I am told.

Many fortresses in Egypt proper, as also in Nubia, were placed on the rocky or sandy surfaces lying just beyond the cultivated area, above which they are but a little raised. In such cases the constructors made use of the following expedient. Outside the main wall of the fortress, and at a short distance from it, a second and lesser wall was built; the enemy had first to break through this before he found himself in face of the inner and true wall. In the artificial ditch, for such it was, between the outer and inner wall the assailants would find themselves in a very awkward position, being exposed to a hail of missiles not only from the top of the inner wall but also, not improbably, from the top of the outer. On a comparatively small scale one of the best preserved fortresses of the double-walled type still exists at Hierakopolis, which is assigned to a very early period<sup>1</sup>. The Shūnet el-Zabib at Abydos is a larger example of the same scheme. At Ikkur (perhaps better known as Koshtemna) in Nubia (see Pl. XXV) is a ruined fort which shows very well the characteristics here referred to.

Ikkur is so valuable an example in fixing an approximate date that, although it is not within the confines of the Baṭn el-Hagar, the evidence it affords cannot be passed over. It was excavated by Dr G. REISNER and Mr C. M. FIRTH, and is described by them<sup>2</sup>.

The reduced plan which I publish (Pl. XXV, Fig. 1) shows that on the same spot there are the remains of two fortresses, one standing in part over the other. The excavators were satisfied that the fortress printed solid black on my plan is the older, and this independently of the fact that it actually is, in places, buried beneath the walls of the later fort, which are in the plan scored with diagonal lines. "The inner and older wall," Mr FIRTH tells us, "is now destroyed to the floor level and is protected by round projecting bastions at intervals of about twenty metres. At the foot of the bastioned wall is a trench, the line of which follows the bastions. Both sides of this trench are faced with mud bricks and sloped towards the bottom of the ditch, which is therefore considerably wider at the top." The trench "had become filled at the time when the outer fort was constructed, as the later walls at two points are carried right across the sand-filled trench and on the N.E. side are built over the counter-scarps of the bastions." "The walls of this outer fort are in places still seven metres or more in height."

The later fortress, rectangular on plan, is not very correctly set out upon the ground, but we see from the remains that its characteristics were entirely those which we usually find in Egypt—a rectangle of thick walls and outside of it a ditch. In these fortresses the ditches must always have been dry, and unless carefully looked after must have rapidly filled with blown sand. Mr FIRTH gives his reasons for thinking that certain projections found on the walls of the northern ditch were intended for the base of a drawbridge.

We return to the earlier fortress. As his plan shows, a thin wall (everything is of brick) is built at the foot of the inner face of the great brick wall at a distance of 1.70 m. from it. We shall see at Matūka the same thing. What purpose did the narrow passage between the two walls serve?

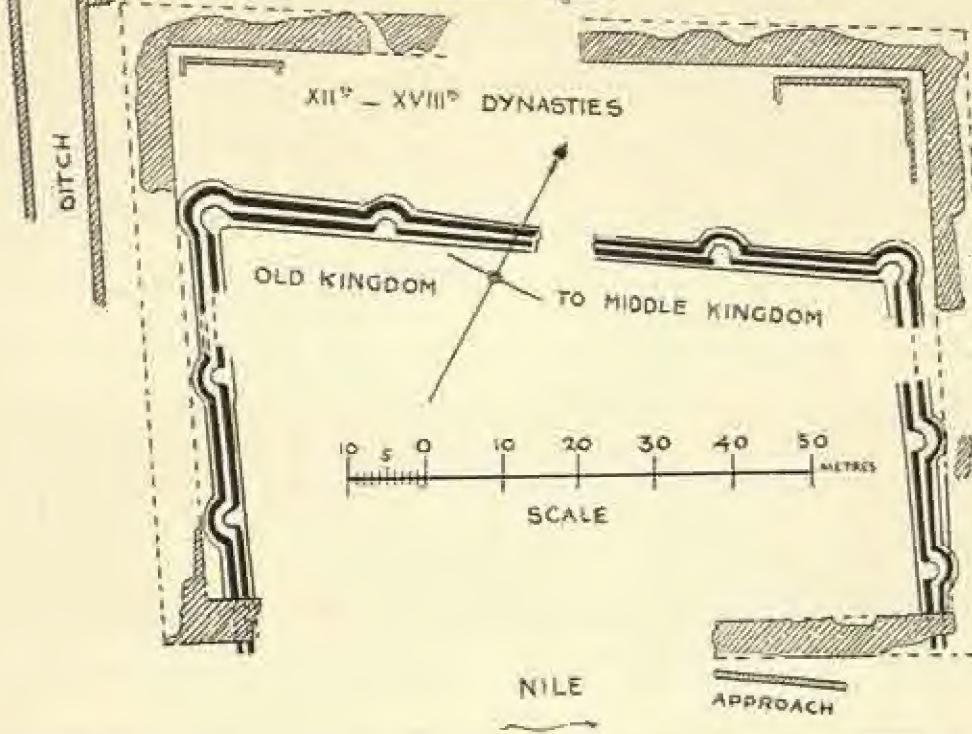
<sup>1</sup> J. E. QUIMBY and F. W. GREEN, *Hierakopolis*, Part II, London, Quaritch, 1902, Pl. 74 and p. 19.

<sup>2</sup> *The Archaeological Survey of Nubia: Report for 1908-1909*, Vol. I, pp. 22-25, and Vol. II, Pls. 33, 34, 35, 36.

DITCH

DRAW BRIDGE

FIG. 1



10 5 0 10 20 30 40 50 METRES  
SCALE

NILE

APPROACH

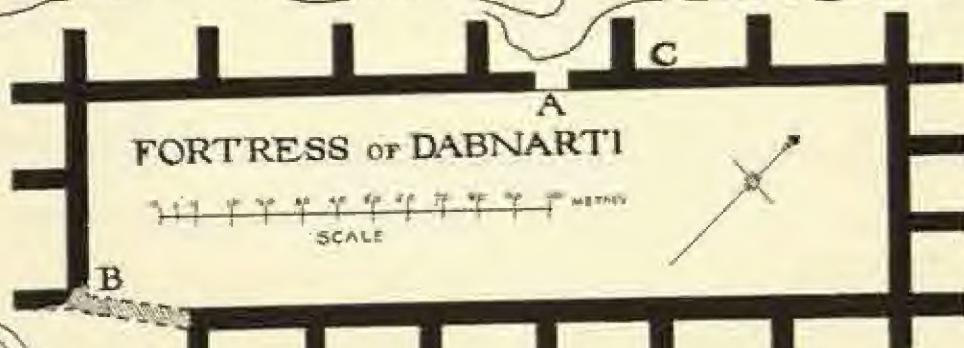
FORTRESS OF DABNARTI

FIG. 2

10 5 0 10 20 30 40 50 METRES  
SCALE

B

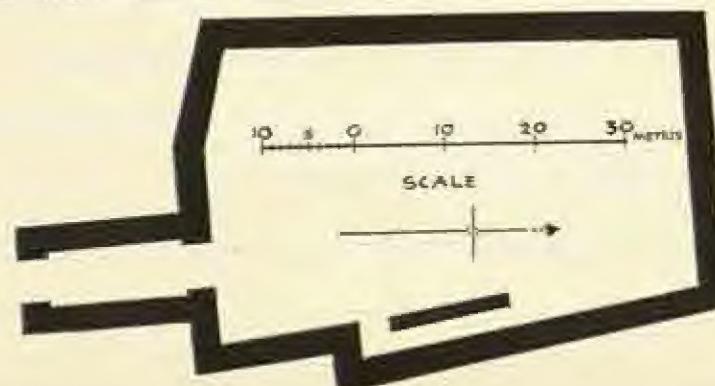
C



10 5 0 10 20 30 METRES  
SCALE

SMALL FORTRESS  
OPPOSITE SIDE OF  
THE NILE TO  
SARRAS

FIG. 3





I visited and examined Ikkur in February, 1899. At that time, in the north-east corner between the Old Kingdom wall and that of the XIIth Dynasty there lay sundry pieces of stone columns, both drums and capitals. One stone was the lowest drum of a column of bulbous type; two stones formed part of a bell capital, all rather rough in execution and small in scale. Probably these stones have been stolen since I observed them; they lay on the surface, and Mr FIRTH does not mention them. They must have formed part of a temple for the use of the garrison, and this, as we shall presently find, was usual.

I have written at some length about the fortress at Ikkur because of its great value as evidence. So many ancient sites have been subjected to continuous occupation and the most drastic alterations or, still worse, have suffered at the hands of archaeologists of the old school, tumbling all things topsy-turvy in search of "objects" and paying no regard to the monuments themselves or the evidences of their history. Ikkur has had the good fortune to have been completely overlooked for centuries. When I first saw it in 1899 I do not think it had ever been investigated. Since then, Prof. GARSTANG has given it his attention and now Dr REISNER and Mr C. M. FIRTH, for whose excellent notes I am very grateful.

The chief peculiarity of the older fortress is that its bastions have, on plan, semicircular ends. For a reason yet to be explained the Egyptian architect eschewed any constructions which were not rectangular in plan. His megalithic system of building, clumsy and incastic, did not lend itself to the employment of arches, nor was it easy to adapt the methods to curves of plan. These objections do not, however, hold good in dealing with brickwork, and yet, amongst the numerous and very large remains of brick structures in Egypt, it is difficult to recall any with curves in their plans excepting the fortress now under consideration and another, presently to be mentioned, near Bûhen, for which see Pl. XXVII.

On my visit to Ikkur in 1899, I took it for granted that the round-ended bastions, the foundations of which could clearly be traced, were the remains of a structure of Saracenic times. Both Roman and Mediaeval builders were much in favour of this form, but Dr REISNER and Mr FIRTH carry it back to the early Dynasties, and I do not for a moment question that they are right. Nor does it seem remarkable that examples of fortresses thus planned are rare. Their immense age and the fact that their materials could so easily be used over again for a later structure are more than enough to account for the disappearance of the most ancient examples.

### III. DESCRIPTION OF THE FORTRESSES IN THE SECOND CATARACT.

#### BÛHEN (Pl. XXIV, A and B).

As the ancient Egyptians approached the enemies' country from the north, going up the Nile, it seems reasonable that we should do the same and begin our work at Bûhen, which lies on the west bank opposite the modern Wâdi Halfa. That this place must have had considerable importance is proved by the ruins of temples we still see and by the antiquities that have been laid bare; also by sundry inscriptions. One of the temples was founded by Senusret I (XIIth Dyn.). There has been discovered a very elaborate system of fortification, partly cut in the rock, partly constructed of brick,

Part of this was first discovered by Capt. LYONS in 1892<sup>1</sup>, and the whole was more completely investigated by DR RANDALL-MACIVER in 1909–10<sup>2</sup>. DR RANDALL-MACIVER gives a plan of the town of Bûhen (Vol. II, Plates; Plan G) and a description of the outer fortifications (Vol. I, Text; Chapter VII). I have taken the liberty of making a copy of the published plan, so far as is necessary for my purposes. See Pl. XXVI.

By a study of this it is easily seen on what scientific lines the fortification was laid out. The ground on which it stands is not level but rises westward from the borders of the Nile. At about 130 m. from the river bank, which is here somewhat steep, the alluvial soil, covered with sand, gives way to a slope of rock. The stout brick wall, with external buttresses along its face, was carried forward continuously, rising with the slope whether of rock or sand, then turned abruptly southward and then again east until it met the river bank. Outside the wall was a system of double walls. From the river edge as far as the rocky plateau a ditch in the sand was not a very practicable thing; but on arriving at the plateau, the rock was cut away and a ditch made. The thin walls carrying on the line of those on the lip of the rock ditch project northward close by the river bank. Here it is supposed there was a tower; another projection occurs further west with remains of a tower. Such projections occur all along the external protections of the wall, which itself does not show evidences of bastions or towers at each of these places.

The ditch "was cut down into the solid rock: it was six metres wide and three and a half metres deep, with sides that sloped steeply down to a flat bottom and were chiselled with remarkable smoothness and regularity. The low brick walls rose directly from the edge of the lips."

A gateway was traced at the river edge in the south wall, and another possibly in a similar position at the river edge of the north wall. The nature of the defences along the river edge could not be ascertained. The great wall had a thickness of 8·75 m. at its base, the buttresses projecting another 1·50 m. It is much to be regretted that DR RANDALL-MACIVER did not give a sectional drawing of the wall and ditch.

Within the space enclosed by the walls above described are two temples. One, which is by far the larger, is attributed by DR RANDALL-MACIVER to Queen Hatshepsut<sup>3</sup> but stands over the ruins of an older building of the XIIth Dynasty. To the north of this are the ruins of another temple attributed to Amenhotep II, which also stands over earlier buildings (see A and B on the plan, Pl. XXIV).

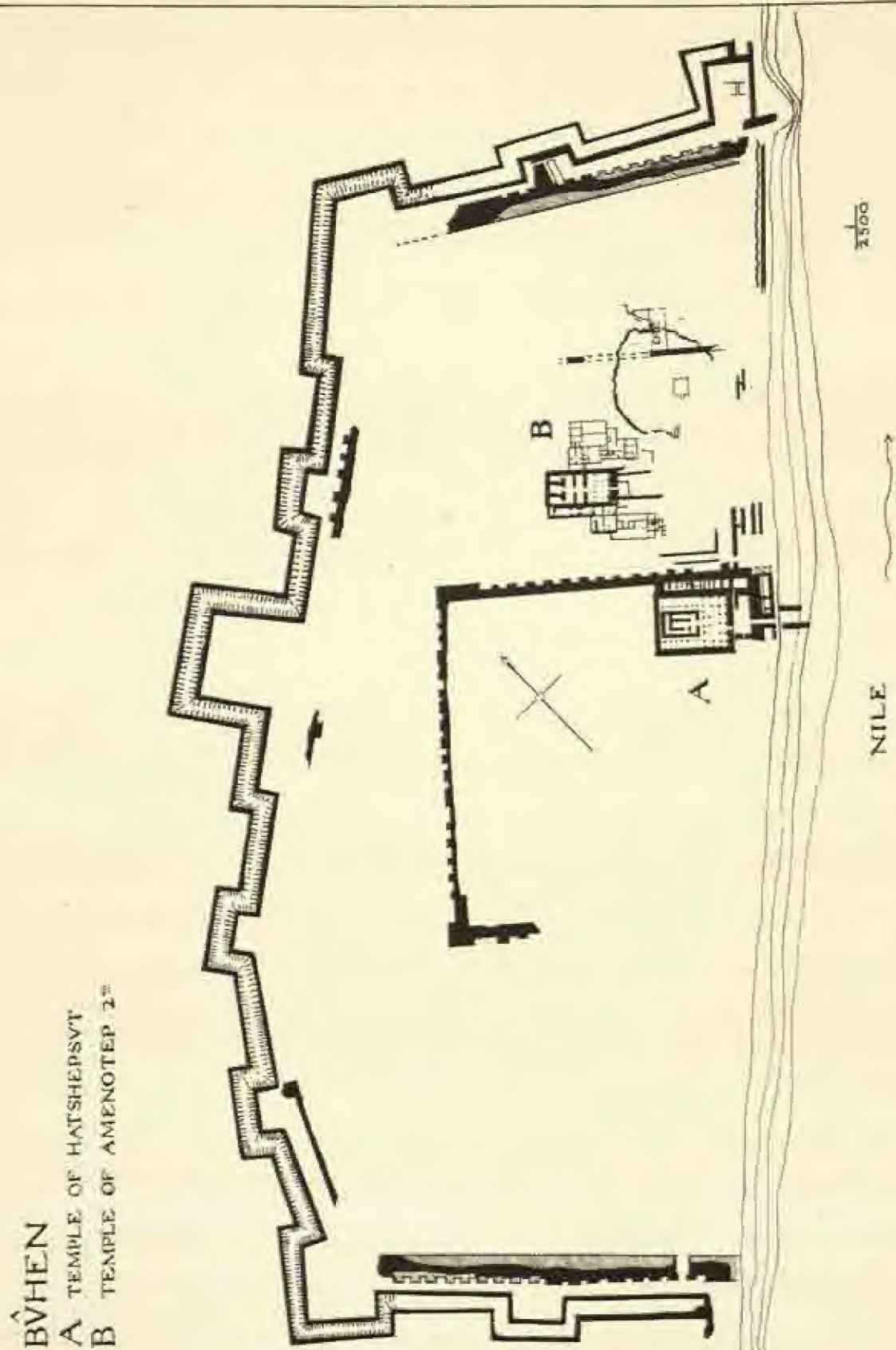
The temple of Hatshepsut stands in the corner of a rectangular enclosure formed by a stout-brick wall with buttresses on the external face. DR RANDALL-MACIVER found reason to believe that this enclosure was built in relation to the XIIth Dynasty temple before referred to, over which the temple A has been built. He considers that the more elaborately planned system of walls and ditches first described were laid out in the XVIIIth Dynasty. I venture to think that the reasons he gives for arriving at this verdict are not conclusive. As far as the knowledge and systems of defence are concerned, surely the scheme adopted may well be attributed to the XIIth Dynasty.

It is evident that the population of Bûhen was considerable. Great quantities of

<sup>1</sup> See E. A. W. BUDGE, *The Egyptian Sædæn*, Vol. I, p. 537.

<sup>2</sup> DR D. RANDALL-MACIVER and LEONARD WOOLLEY, *Bûhen*, University of Pennsylvania, 1911.

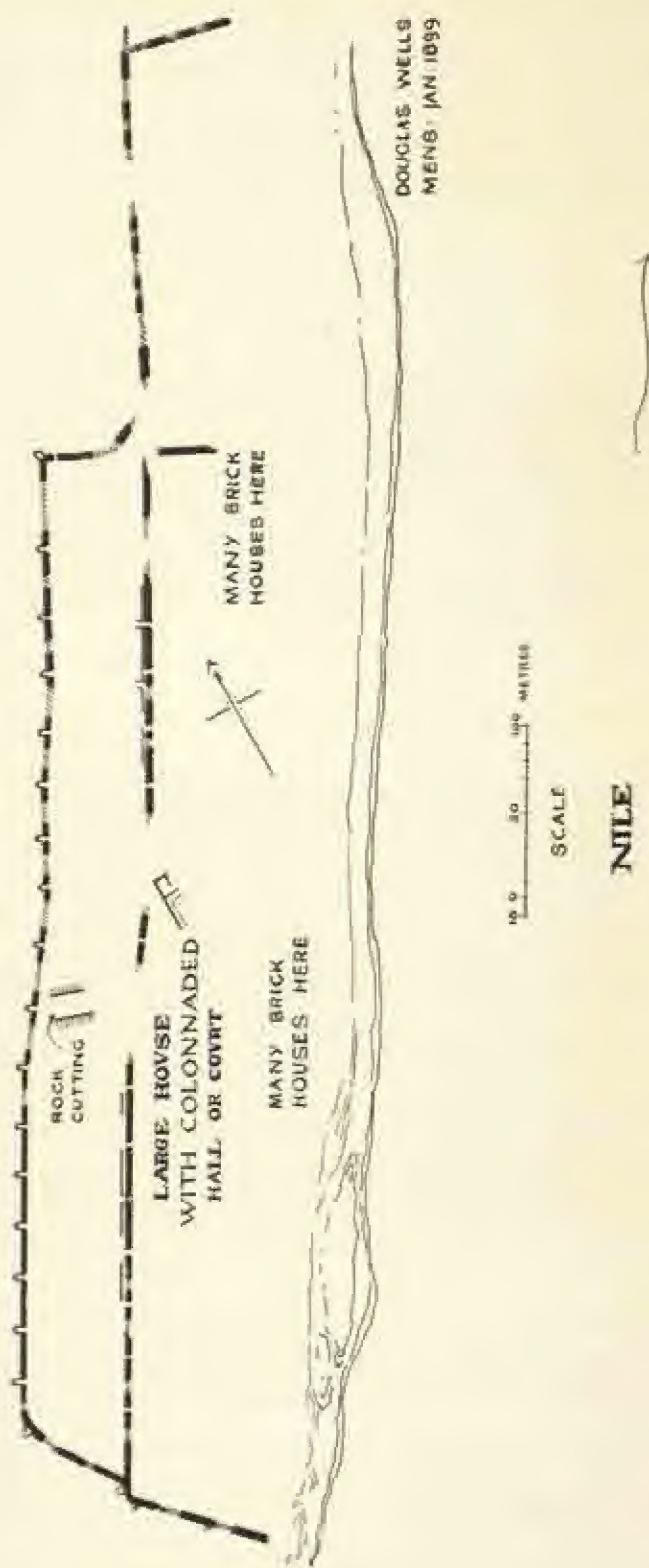
<sup>3</sup> Hitherto attributed to Thothmes III.







B<sup>Y</sup>HEN. REMAINS OF  
A WALLED TOWN



potsherds cover the surface of the river-bank both north and south of the fortress. I found considerable remains about a mile and a half south of the temple of Hatshepsut (Pl. XXVIII). In January 1899 I observed by the side of the river a long line running parallel with the west bank of the Nile and slightly raised above the general surface of the sand<sup>1</sup>. A few excavations were made: these soon revealed a line of wall from which projected at intervals, towards the west, a series of bastions with semi-circular ends corresponding, as we now see, very exactly to the bastions at Ikkur. This wall is about 600 m. in length; from its western face there project at least eighteen bastions. Behind it, i.e. towards the Nile, are the remains of a second wall with traces of bastions also projecting towards the west. Thirteen were clearly traced, but there certainly were many more. This wall extends to a length of fully 1000 metres and returns at the north and south end towards the Nile, enclosing a long strip of land which it was evidently intended to protect against invasion from the side of the Libyan desert. Rubble stone is the material used for the work<sup>2</sup>. The bastions are not spaced with accuracy, but occur at intervals of about 30 metres. The main wall has a thickness of about 2·40 metres, but the wall of the bastions is only about 0·90 cm. thick. It is possible, indeed probable, that the wall resting on this stone work was of brick. In Nubia the sand, which is the degradation of the Nubian sandstone, is exceedingly coarse and angular in its grain. Much evidence could be given to show the powers of attrition this material possesses when driven forward for three or four thousand years always in the same direction. In the case of the ruin now under consideration the upper surface of such bricks as remain in position are scored by the moving grains of sand, which leave on them a series of parallel lines as though they had been scratched by a fine comb. This being the case, it may be supposed that there was more brickwork than we now find evidence of. Not only is the wall slowly ground down, but the materials of it are removed and scattered far away; within the space enclosed by the walls is a quantity of dry alluvium and also of broken brick.

The bricks found intact beneath the sand are all large (average 0·32 × 0·15 × 0·08 m.). Large bricks are always found as the remains of fortresses, temples, and public works. Small bricks, such as are used to-day, are found in the building of private tombs and small structures.

When we consider the walls I am now mentioning, we are forcibly reminded of those at Ikkur (see above, pp. 160—161). The conclusion arrived at in that case was that the fortress with rounded bastions dates from the Old Kingdom. Are we not then permitted to suppose, until further specific evidence is obtained, that the walls I have now been describing belong to the same period?

Protected by these walls I found the remains of what I take to be a house of some importance.

A little south of the place last described numerous islands are seen in the river, which increase in number until they considerably obstruct the flow of the water and form eddies and rapids. We enter upon the northern outlet of the Second Cataract. Several of these islands have on them remains of ancient buildings with massive walls

<sup>1</sup> See Pl. XXIV, at B in Figs. 1 and 2.

<sup>2</sup> We now see only the ground courses.

of brickwork. These are always built of large bricks, and upon them are imposed other structures with bricks of smaller size, evidently of later date.

#### MAYANARTI (Pl. XXIV, C).

At the southern end of this island is a large mass of crude brickwork, with remains of very many small vaulted rooms and passages. Pottery is found of both Christian and Arab times. The ancient place was probably used by Romans, by Christians, by Arabs, and in more recent times either by or against Derwishes.

I was enabled to give a more thorough examination to this island in Feb. 1916.

The brickwork above referred to is crowned by a platform, breast-walls, etc., now very much broken, constructed entirely of small bricks and very badly built. This was erected on the top of a mass of older building, and was made to receive a gun or two and act in concert with a fort on the east bank. The two commanded the approach towards the camp at Halfa and were set up against the Derwishes. Small chambers round about were arranged for the accommodation of the garrison, and were mingled with rooms of older date connected with the fort on which the platform above mentioned had been imposed. It was evident that very much of the older work had been overthrown and levelled down to form a bed for the new.

Beneath this system of top works and the layer of ruins is seen a stratum of very large bricks much broken up. I have not elsewhere found any of like size; they are no less than 0·40 m. long and 0·20 m. wide, but with the thickness 0·05 or 0·06 m. of ordinary small bricks. Beneath these are found bricks of the same dimensions as in the buildings at Bühen and presumably of the same period. These particulars are given to show that the island must, in early times as now, always have been considered a place of strategic importance. The pottery gives the same indications. In addition to fragments quite modern, there are pieces of the fine glazed and coloured ware of which so much has lately been found in the dust mounds south of Cairo. The place was clearly garrisoned by troops having commanders from Cairo, who were not content with unglazed ware. Much pottery of a fine quality and of an earlier type is also found, both Coptic and Roman. The island, which even within the memory of man has lost a considerable slice on its eastern side, is now almost uninhabited; but the ruins of many ancient houses testify to the great number of its earlier inhabitants. Clearing the sand from the buried houses would no doubt reveal much of interest and would open out some pages of its more remote history.

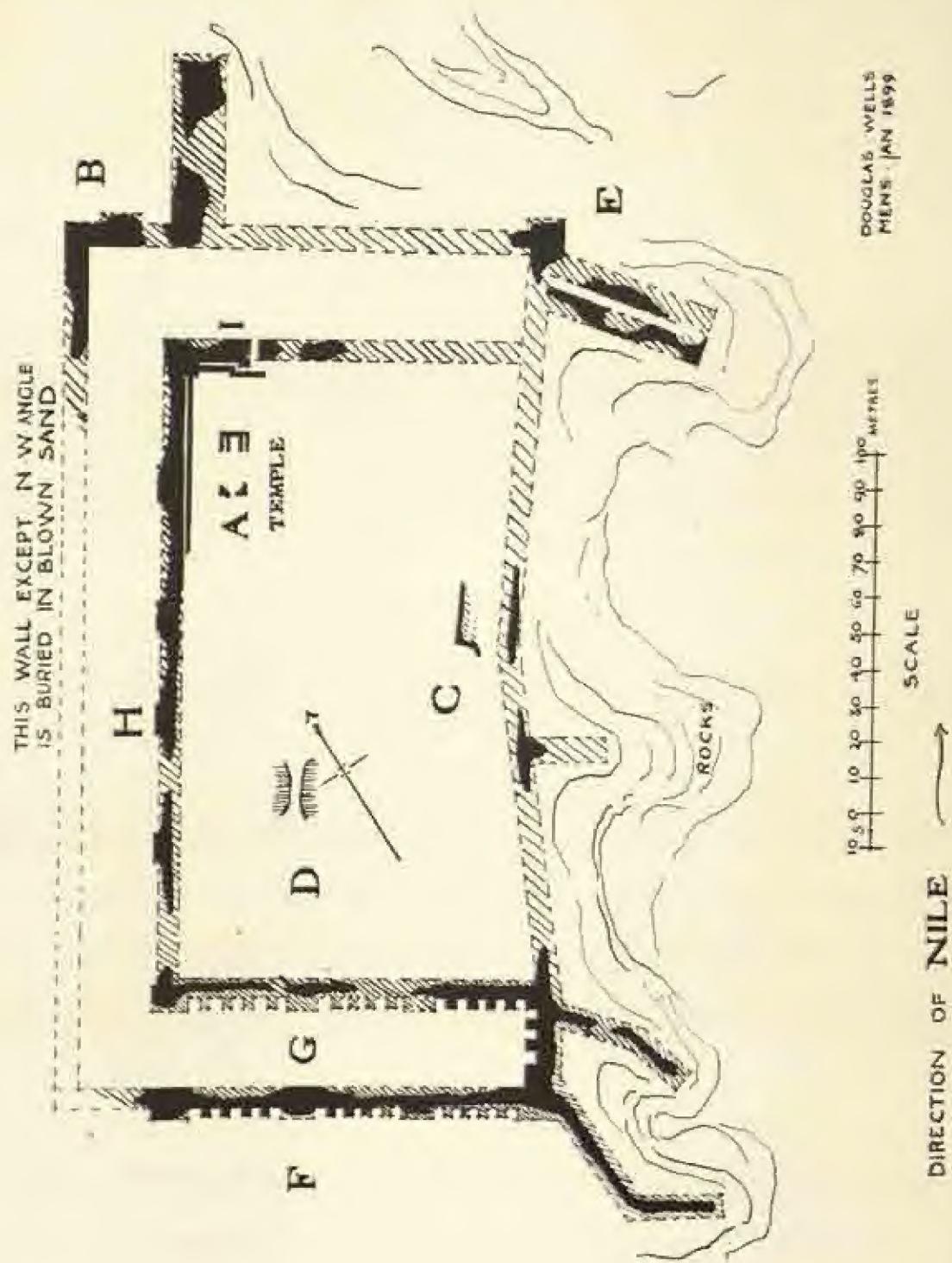
#### DORGAYNARTI (Pl. XXIV, D).

This island is about a mile south of the last. On it is a vast solid wall of crude brick. The fortress is elongated on plan, the length being from north to south, and the east and west sides being approximately parallel. The bricks vary much in size; some are more akin to tiles, 0·35 × 0·35 × 0·10 m., in other places the more usual dimensions, 0·32 × 0·15 × 0·08 or 0·10 m., are found.

Standing, as it does, on a base chiefly of hard alluvium but probably with rocks below, and the foot of the walls being but little above present high Nile, the water has disintegrated the lowest courses of the outer face, with the result that the mass of



# FORTRESS. MATVKA



the wall has now a tendency to sink outward, the outer skin falling off into the river. A revetment of rubble stones was provided to obviate a danger that was foreseen, use being made of the hard green rock which forms the material of most of the cataract. Loose stone of the same description was also thrown down to break the rush of the water. A small piece of cut stone lay within the circuit of the walls, part of a small cornice; there are, probably, more pieces to be found.

The brick walls are fully eight metres thick. In the west wall I observed the usual courses of timber bond built in irregularly. The dimensions of the fortress are roughly 194 m. from north to south, and 80 m. from east to west.

#### THE FORTRESS AT THE MOUTH OF THE WÂDÎ MATÛKA (PL. XXIV, E).

This very extensive work stands on the west side of the Nile upon the top of a rocky cliff, at an elevation of about 20 to 25 m. above the river.

When I first visited the place (Jan. 26th, 1894) my investigations were of a summary character, as we were beyond the Egyptian frontier and the Derwishes were active; on the occasion of my second visit (Jan. 8th, 1899), when I was accompanied by my friend Mr R. D. WELLS, we had no such anxieties. We were then told that Matûka was the name of the district, and that the fortress itself was called Miurgassi. Dr BUDGE informs us (*op. cit.* Vol. 1, p. 549) that there is a Wâdî Ma'atûka, at the mouth of which the fortress stands.

A glance at the plan (Pl. XXVIII) shows that this fortress covers a considerable area of ground and was carefully laid out for defensive purposes, full advantage being taken of the site. The total length of the fortress from north to south, including the north bastion, is about 295 metres, and the width over all from east to west is about 190 metres. The space enclosed by the inner walls is about 175 metres by 100 metres.

On the western side of the site, the Nile flows below a series of rocky cliffs, which are broken into by the mouths of lateral gullies. The floors of these gullies rise rapidly, and at a comparatively short distance inland lose themselves in a range of rock-hills mostly covered with sand. These hills form a fairly even place for a track running from south to north; and a more beaten track lies below on the Nile bank. The site selected has one of the gullies lying to the north of it, and a lesser gully to the south. By the choice of this position the strength of the north and south walls is not a little assisted, whilst towards the east we find the rocky cliffs above referred to, with the Nile quite near their foot.

It will be observed that the above-described (p. 160) system of double walls forming a dry ditch is here carried out to a grand scale on the north, south, and west sides; there is no need for it on the east. It is clear that the designers of the fortress realized how objectionable it was that the enemy should find lodgment on any place level with the base of the walls. The very massive bastion *B*, which stands forward some 47 m. from the wall-face on the north, and is 16 m. thick, not only occupies the summit of a piece of rock that might be a place of lodgment for the enemy, but also commands the gully which we may almost certainly regard as the approach from the river. It also seems possible that the entrance to the fortress through the outer wall was defended by the bastion.

A study of the plans of the two fortresses at Semna will show that in those places advantage was taken of pieces of rock in the same way as we see done here. An objectionable spur of rock at the north-east angle is similarly covered by a bastion (*E*). The wall here is double; whether this indicates the beginning of a covered way, by which the river could be approached and water for the garrison procured, I cannot venture to say. Many questions present themselves for solution, the answers to which could be obtained only by careful and scientific investigation assisted by spade work.

At the south-east angle of the fortress there are two bastion or spur walls, shaped in plan so as to cover the surfaces of the two shoulders of rock on which they are planted.

Very much of the timber bond in this part of the fortress is in an extraordinarily good state of preservation; pieces stick out from the wall-face 30 or 40 cm. long, both sound and hard. The friction of wind and sand has worn away the brickwork and left the timber but little affected.

The inner and outer walls (*F*, *G*), forming the enclosure of the fortress on the south, show a peculiarity of construction. As we see by the plan, the southern faces of the two walls and the west face of the east wall are divided by piers into a series of recesses. Had the recesses been found only towards the interior of the space enclosed by the walls, it might have been supposed that they had to do with an economy of material; but they also occur on the outside of the southern wall, in a place where they would be an actual source of weakness, since an assailant working at a mine within the recess would be a good deal protected from the attack of soldiers on the wall-top. The recesses do not at all suggest the ornamental panelling we find on sundry mastabas. There are some indications of pilasters on the outer face of the inner west wall (*H*). An examination of the plan of the fortress at Bühen (Pl. XXVI) shows that the system of piers external to the walls was largely made use of, not only in connection with the walls forming the rectangular enclosure surrounding the temple of Hatshepsut, but also in connection with the more complex outer walls. Up to the present, I am not able to point to this peculiarity of construction in any other part of Egypt, but the spade, which has done so much for us in this venerable country, may yet reveal similar examples elsewhere. The outer western wall is nearly buried in blown sand.

Where was the entrance to the fortress? It seems almost certain that it must have been through the north wall protected by the very massive bastion. There is, now, an opening in the north outer wall at this place. At *I* is a narrow way through the inner wall; no other indications of a doorway were observed. As at Ikkur, so here traces of a thin wall can be seen inside the inner north and west walls, and at a very short distance from its base. This wall, oddly enough, is carried across the doorway; it seemed to end where shown on the plan, as if the object had been to intercept direct entrance to the interior of the fortress. Remains are seen of a small temple, first cleared by Capt. Lyons in 1892 (*A*)<sup>1</sup>. It was built by Sennset III, and was a construction chiefly in brick, with stone used for a few walls and doorways. At the present time it is, for the most part, almost levelled with the ground.

The rock rises slightly within the area enclosed by the fortress walls and has, in a place indicated on the plan by the letter *D*, been cut through, leaving a shallow trench. What purpose did this trench serve?

<sup>1</sup> See the brief account, with plan, contributed by Major Lyons below pp. 182-3.—ED.

## DABNARTI (Pl. XXIV, F).

Almost opposite to Matūka, to the east, lies the island called Dabnarti<sup>1</sup>. It consists of a narrow ridge, its length north and south rising in the manner of a hog's back. So far as could be seen amidst the labyrinthine water-ways which here press between a crowd of rocks, the best channels were those that pass this island. The fortress of Matūka and that upon Dabnarti would thus really command the river. It must not be forgotten how great a difference in level there is between the heights of a high and of a low Nile, some 26 feet or more. The observer must, therefore, be careful to state the month in which he makes his visit to the different places described by him. Under one set of conditions an island may be reached dry-shod or by a little wading, while at another time there may be a swift and dangerous stream either dashing amongst the rocks, or, what is perhaps yet more risky, just hiding them.

When I visited the place in the month of December 1909, the Nile being more or less normal, the current was very swift, and with the clumsy boat at our command the approach to the island was not a very easy business.

On the hog's back afore-mentioned is built the fortress (Pl. XXV, Fig. 2), forming an approximately rectangular enclosure about 59 m. wide and 227 m. long. The walls are for the most part built of crude brick, but where the ground slopes quickly towards the water, as it does in some places, a basement is prepared of the hard green stone which forms the material of this island, as well as of most other rocks in the cataract; the stone is laid dry, and without mortar. The plan, it will be observed, is very simple, consisting of straight walls with spur walls at right angles. The fortress covers almost all the available surface of the island. The walls are a good deal broken towards the top; what may have been their original height it is not possible to say.

The entrance was on the west side (*A*), the water swirling past with great vigour even at the time of my visit. An inclined way rises from the north and from the south, meeting at a gap in the wall, but the gateway itself has entirely disappeared. The entrance is placed in an extraordinary position as regards the water. The most energetic of all the rapids near about begins at this very place. A boat missing the little landing place would be sucked northward at once and be broken against the many rocks.

The space within the walls is devoid of any signs of occupation, and there are no indications of huts or houses, though excavation might reveal something. At the south-east angle (*B* on plan) the bricks of the wall have completely disappeared, a fact which may be attributed rather to erosion by the wind than to human violence; for the rock at this point rises so steeply from the river that no ascent could be effected here.

The spur *C* has on its walls, built double with a space of about one metre between them, a species of cellular construction. Can these be the lowest courses of little chambers for guards who could hence throw missiles on persons approaching the entrance by the inclined way? From the north-east angle are indications of a way down to the river, which was doubtless used in fetching water.

<sup>1</sup> In Murray's *Guide*, ed. 1910, p. 544, this island is called Tabat; Baedeker, English ed., 1914, writes the name Dabeh.

## FORT OPPOSITE SARRAS (Pl. XXIV, G).

This fort (Pl. XXV, Fig. 3) occupies a very commanding position on the summit of a rocky eminence, with a comprehensive view up and down the river<sup>1</sup>.

The descent towards the Nile on the east is very rapid, and the approach from the north and west is steep and covered with deep sand; from the south the approach is not much better.

Compared with Matuka or Dabnarti the dimensions are small, 77 m. x 41 m. The entrance is well preserved, and consists of thick walls advanced from the main body of the fort. It would have been easy to cover this with a flat timber roof through which an enemy could have been assailed, but the walls do not now stand sufficiently high to indicate the way in which their tops were finished. The piece of wall standing parallel with the eastern wall may have assisted to support a stairway giving access to the wall-tops, but no marks of steps were observed.

## GAZIRAT EL-MALIK (Pl. XXIV, H).

This is an island of some size with a hill in the midst. The commanding position of the island in relation to the river at this point and the fine outlook given by the hill doubtless induced the Egyptians to establish on it one of the chain of fortresses we are now considering. I regret that I was not myself able to land on this island; so I depend on the descriptions given by Dr BUDGE<sup>2</sup> and by my friend Mr R. D. WELLS<sup>3</sup>, who accompanied me on my visit to Baṭa el-Hagar and to whose kindly and untiring assistance I am greatly indebted.

Dr BUDGE tells us that on the hill there are the remains of a large fortress with mud-brick walls of enormous thickness and strength. I wish Dr BUDGE had been just a little more technical! He found a small temple within the fortress and some antiquities of great interest, all of which he describes—but these are out of my province.

As we were not able to make careful measurements, I think it is as well to say no more about this place but to move southward to Semna.

It would seem not improbable that the very considerable number of fortified places established in the comparatively short distance between Bühen and Semna may have been due to the fact that, under many if not most conditions of the Nile, water communication between them must have been difficult. Each fortress would have to be more or less self-contained, and capable of, at least, some independence of action.

<sup>1</sup> This is probably the place described by BARDEAUX, English edition, 1914, as follows: "We regain the river opposite *Sarras*. Numerous rocky islets interrupt the stream; on one of these, to the S., are the ruins of an Arab castle, perched upon a rock. Alternately skirting the river and traversing the desert for another hour, we next reach *Shalfak*, with a well-preserved fortress of the Middle Kingdom."—Eo.

<sup>2</sup> *The Egyptian Saddis*, Vol. 1, p. 488.

<sup>3</sup> See *A note on the Fortress of Gazirat el-Malik*, by R. DOUGLAS WELLS, below pp. 180-1.—Eo.

## THE FORTRESSES OF SEMNA: SEMNA EL-GHARR (PL. XXIV, I).

Whilst the fortresses already mentioned seem to have escaped general observation, and have not, so far as I know, received even the far too cursory examination I have been able to give to them, the two fortresses at Semna have been visited on sundry occasions, and notes upon them will be found in the works of BURCKHARDT, LEPSIUS, HOSKINS, DE VOGUE, BUDGE, and others. LEPSIUS gives a small-scale map of the district on which the fortresses are depicted, though not very correctly<sup>1</sup>. The extraordinary flights of the imagination offered for our acceptance by PERROT and CHIPPEZ<sup>2</sup> stand in no need of criticism; and it is hoped that the drawings which accompany this paper, imperfect as they are, will support me in this assertion.

The Nile here cuts its way through a reef of hard rock, and is more constricted than at any other part of the Second Cataract. When I first visited the place at the end of December, 1898, the bulk of the river was observed to force its way with much noise and a descent of several metres through three more or less narrow passages. The stream passing at this time along the western shore, above which stands the larger of the two fortresses, was quite insignificant; but through the easternmost of the three passages the water was pouring with great violence. Beside the last-named water-way stands the eastern fort, which LEPSIUS called Kummeh, but which the people of the place told me was known to them as Semna el-Sharq, i.e. Eastern Semna; the rock-inscriptions are engraved on the east side of this passage.

Dr BALL, of the Egyptian Government's Geological Survey, has published<sup>3</sup> a more careful account of the cataract at this spot than had been given by any previous investigator, accompanied by a map of the district and a section through the line of reef forming the barrier. He visited Semna in March 1902, when the Nile was nearly at its lowest, and then found the whole body of the stream passing through a single opening in the reef somewhat nearer to the eastern than to the western fortress; his longitudinal section makes it clear, by the depth of the channels, that the greatest volume of water passes through the central and eastern channels, as indeed was the case when I visited the place in December 1898. Dr BALL confirms my view, based on the assumption that the water rose to the level of the highest inscriptions, that at the time of high Nile the fortress of Semna el-Sharq would become an island for a short period in each season. The fortresses were doubtless placed where they are in order to control the river throughout the whole year; but it is obvious that, then as now, the condition of the water-way when the river was in flood differed considerably from its condition at the time of low Nile. I do not think that any evidence exists to show that the level of the river has changed much, if at all, below the cataract at Semna, or indeed anywhere between this and the First Cataract. If, however, the highest water-level above the cataract at Semna stood seven metres higher than it

<sup>1</sup> LEPSIUS, *Denkmäler*, Part 1, Pl. III.

<sup>2</sup> PERROT and CHIPPEZ, *A history of Art in Ancient Egypt*, translated by Walter ARMSTRONG, Vol. II.

Fig. 30.

<sup>3</sup> JOHN BALL, *The Semna Cataract or Rapid of the Nile; a study in river erosion*, in the *Quarterly Journal of the Geological Society*, Vol. LIX, February, 1903.

does at the present day there must have been a formidable waterfall at this point during many months of the year, the descent being so abrupt that no boats could have passed either upstream or downstream.

During part of the year the duty of the garrisons would, we might think, have been rather to guard the way by land than that by water. The inscriptions at Sehel, however, must be taken to indicate that the passage by water was that most closely watched; and Pl. XXIV will show that the fortresses here discussed were meant to hold command of the river rather than of any roadway. The ancient road can be traced fairly easily, and by no means always follows the river edge; it very naturally avoids bends in the river and the unnecessary climbing of eminences. In some cases the road is not even in view of a fortress.

The movement of hostile bodies had but just come to an end when I visited the Second Cataract in the December of 1898; the army of the Khalifa was defeated on September 2nd of the same year. The forces of the enemy did not follow the river bend, but kept a little way inland with the intention of escaping observation. Similar conditions must have prevailed in the XIIth Dynasty; but in no case could any number of people be moved and remain at a distance from the river, for in the desert is certain death.

It will be well first to describe the greater fortress (Pls. XXIX—XXXI), which is really a most remarkable structure. There is nothing like it either in Egypt or in Nubia. The place it was to occupy was clearly suggested by the presence of the reef of rock. The position of the walls having been decided upon, a basement was prepared of the hard gneiss found in the neighbourhood. The stone cleaves naturally into more or less rectangular fragments, so that but little labour was required to make it take its place in the dry masonry of which the basement was formed. Even towards the river where there is a steep bank of rock a good deal of "making up" was done to level the surface for the reception of the brick walls.

A broad ditch was provided outside the basement, somewhat irregular in its width but extending on an average 26 metres from the wall-face (see the sections, Pl. XXX). The bastions projected into the ditch. The face of the ditch farthest from the wall is revetted with dry masonry; beyond it is a sloping glacis having its surface laid at an angle of about 60° with the horizon. The very extensive area of stonework is carefully laid, the stones being quite neatly and smoothly fitted to one another. The slope was evidently determined with regard to the top of the great wall, so that missiles projected thence would completely command the surface.

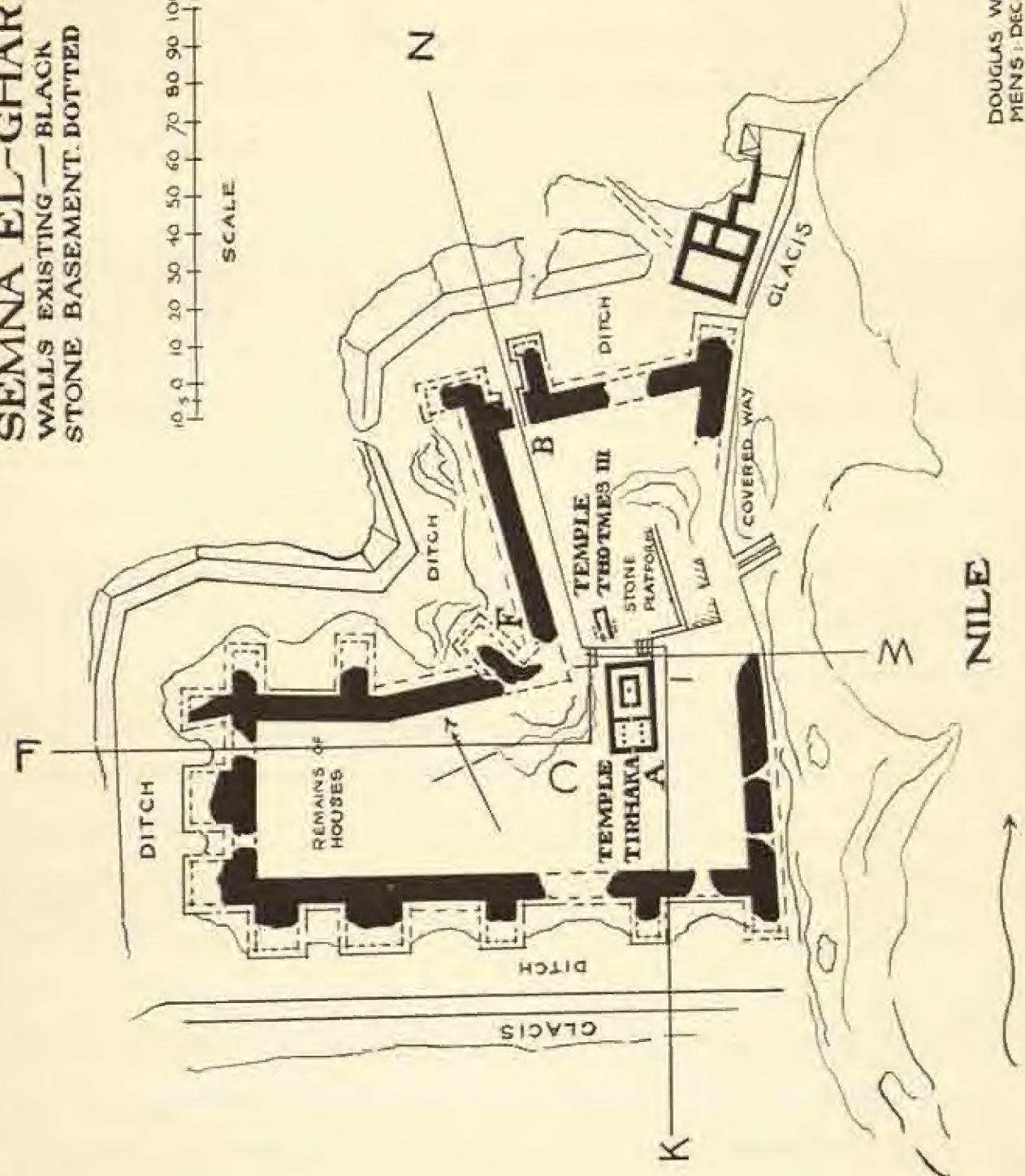
What the western fortress lacked in natural strength of position was made up for by art. However, advantage was taken of a knoll of rock at the eastern end of a hill that runs forward towards the river with a valley on its north side and a narrower valley on the south; these valleys slope gently towards the river. The neck of rock immediately west of the fortress has been cut through by a wide ditch, and thus isolation is secured on all sides.

The plan (Pl. XXIX) shows that in the laying out every effort was made completely to cover the summit of the eminence on which the fortress stands, thus leaving no place on which an enemy could lodge himself and sap the base of the walls. The plan is roughly that of the letter L, the limbs being about equal in length. The ground enclosed by the walls is far from level, falling rather rapidly towards south

SEMPNA EL-GHARB  
WALLS EXISTING—BLACK  
STONE BASEMENT, DOTTED

100 90 80 70 60 50 40 30 20 10 METRES

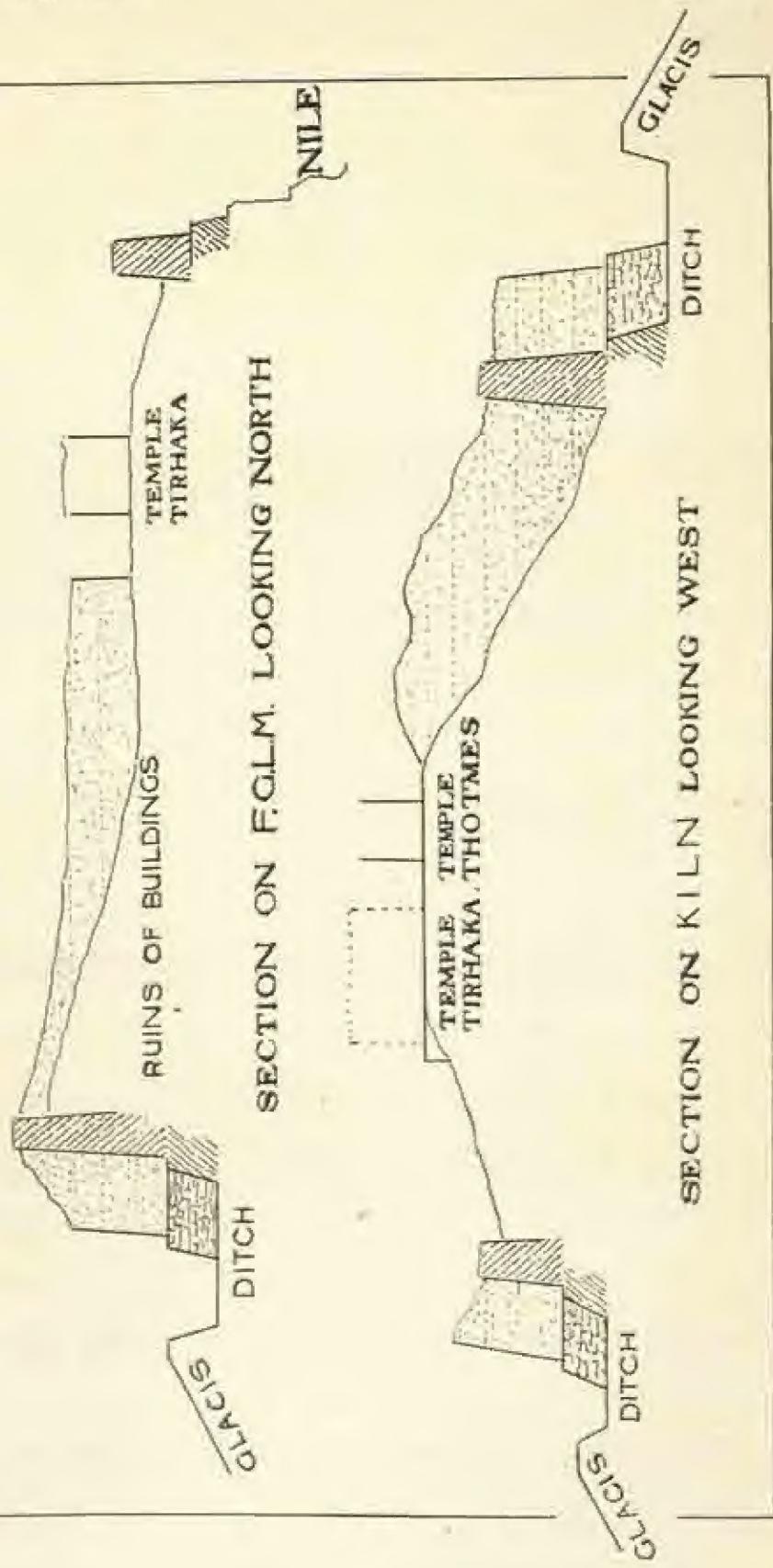
SCALE







SEMNA EL-GHARB  
SKETCH SECTIONS  
HORIZONTAL SCALE  $\frac{1}{100}$   
VERTICAL SCALE  $\frac{1}{200}$



and north, but rising towards the west. The temple stands on a platform that is partly artificial.

The great enclosing walls are built on a base of masonry consisting of the hard green gneiss before described, laid dry without any kind of mortar. The thickness of the brick walls where they rest on the masonry varies from 6 to 8 metres, but the sides show a batter as they rise. The spur walls or bastions are in many cases much thicker than the main walls, their increase of substance being regulated by the space available.

The sections of Pl. XXX should be studied, in order that the skill with which the site was prepared may be fully realized; they are drawn to a scale of five vertically to one horizontally. Without such exaggeration in the vertical direction it would be difficult to realize the values in a diagram on so small a scale. The section on the line *K, I, L, N* from south to north passes by the temples of Tirhaka (*A*) and of Thothmes III, resting, as we have previously seen, upon a partly artificial platform<sup>1</sup>. The rock descends very rapidly towards the north, where we soon reach the brick enclosure wall standing on the masonry base, the broad ditch into which the bastions project, the counterscarp, and finally the glacis. Going southward from the temple platform we descend less sharply than towards the north, and find the wall, ditch, and glacis as before.

The section on *F, G, L, M* follows a line from west to east. We first find the glacis and the ditch which cuts off the fortress from the hill on the west, and then the great wall; within the latter are the remains of buildings. The line next passes between the temples of Tirhaka and Thothmes III until it reaches the wall that stands on the low cliff overhanging the Nile.

I ask the reader to understand that these sections are not made from a series of accurate levels, but were built up on the spot from rough notes and have no pretension to be more than sketch sections.

Some slight excavations were made at *B* and at *F* in the hope of establishing the position of the entrance of the fortress, but were unsuccessful. The re-entering angle *F* appears to be a place that would have been easy to defend, the enemy being subjected to assault from the walls on either hand. But this holds good also of an entrance at *B*. As we may presume that the attacking forces would approach from the south, it would seem reasonable that the entrance should be towards the north, from which quarter the Egyptian troops and supplies would arrive.

The bird's-eye view (Pl. XXXI), based as it is on the plan, does not pretend to do more than give a general idea of the place. It is probably more easy for most persons to understand than the more technical drawings. It does not claim to show the fortress as it was at any given moment; and we do not know how high the walls stood. It is by no means impossible that they may have been somewhat higher at one point than at another. There is no evidence to show how the walls were finished at the top; nor can the nature of the small outbuilding by the river side at the

<sup>1</sup> A plan of the brick temple of Tirhaka, with photographs and description, is to be found in Dr BUDGE's work, *The Egyptian Sodas*, Vol. 1, pp. 481—488. A plan of the temple of Thothmes III occurs *op. cit.*, p. 587, with a description of the reliefs on the walls; it is on the walls of the latter temple that Thothmes III commemorates his ancestor Senusret III. See too LEMSIUS, *Deckblätter, Textband V*, pp. 190—202, where references to the plates in the main work are given.—EN.

north-east angle be determined<sup>1</sup>. In the bird's-eye view the site of the later temple of Tirhaka is indicated by the letter *A*.

No means of access to the wall-tops can be traced; but one is justified in supposing that in the case of so irregular a structure there must have been ramps or stairs in several places. I could not observe any small doorway or passage through the eastern wall giving access to the covered way that led to the river.

This covered way (Pl. XXXI, *C*) is a purely artificial work consisting of powerful masonry. The roof is of thick heavy slabs, and the walls and floor are of solid construction, far more firm and resistant than the covered way at Semna el-Sharq hereafter to be described. The covered way is at a lower level than any part of the fortress itself and could not have been of use for defensive purposes.

At this point it may be well to call attention to a very remarkable statement made by the writer of MURRAY'S *Handbook for Egypt*, edition of 1907. He tells us that the fortress of Semna stands about 300 ft. above the river, and that Kumma (Semna el-Sharq) is some 400 ft. above the river<sup>2</sup>. The base of the walls at Semna el-Sharq is about 18 metres above high Nile; at Semna el-Gharb it is about 14 metres. These measurements are given by DR BALL in his section through the cataract from east to west. More will be said concerning the relation of the fortresses to the level of the Nile waters when I come to deal with the ancient inscriptions first observed by LEPSIUS.

South of the fortress of Semna el-Gharb the rocky hills retire somewhat from the Nile bank. There is a comparatively level space, on which a few trees are seen and which has evidently been inhabited and cultivated. Great quantities of broken pottery strew the ground. The ruins of a rectangular building are here to be seen, each side about 44 metres in length and with walls of considerable thickness. The bricks are all large, measuring  $0\cdot30 \times 0\cdot13 \times 0\cdot08$  m., and are made without chaff (*tibn*). Small timber bonds are inserted at random both transversely and longitudinally. The courses of brickwork are horizontal. All the constructional evidence, in fact, favours a high antiquity for this building.

#### SEMPA EL-SHARQ OR KUMMA (PL. XXIV, *K*)

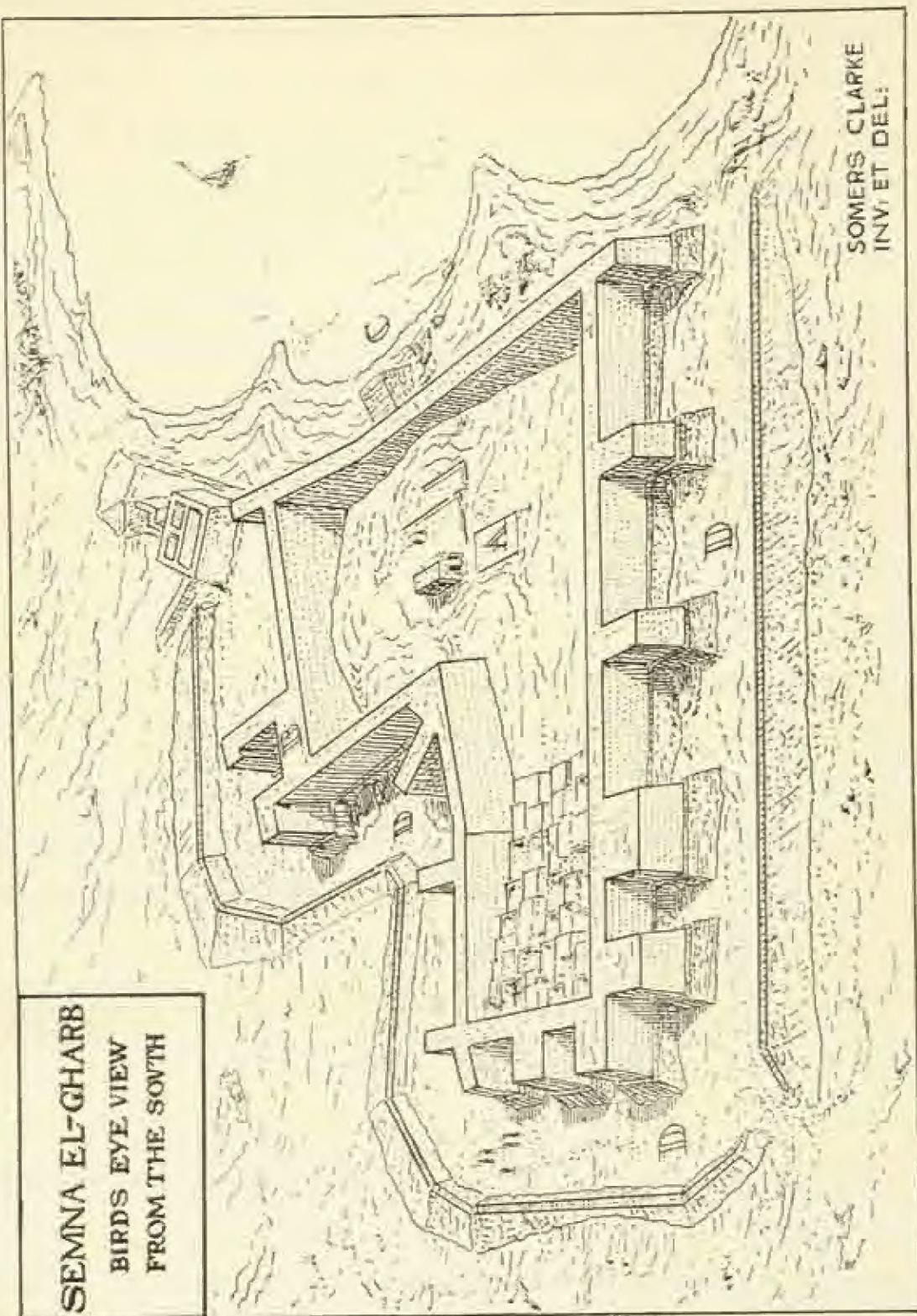
The position of this fortress in relation to the cataract of Semna is well shown in LEPSIUS' map, which is partly copied in DR BUDGE'S book (*op. cit.*, Vol. I, Pl. opposite p. 588).

It will be observed that the plan of this fortress (Pl. XXXII) differs materially from that of Semna el-Gharb, to which, moreover, it is much inferior in size. Whereas the extreme length at Semna el-Gharb is about 230 metres from north to south and 180 metres from east to west including the glacis, the extreme measurements at Semna el-Sharq are 117 metres from north to south and 70 from east to west; in this statement it is assumed that the course of the Nile gives the direction north and south.

The fortress stands at the extreme end of a rock that is part of the reef running

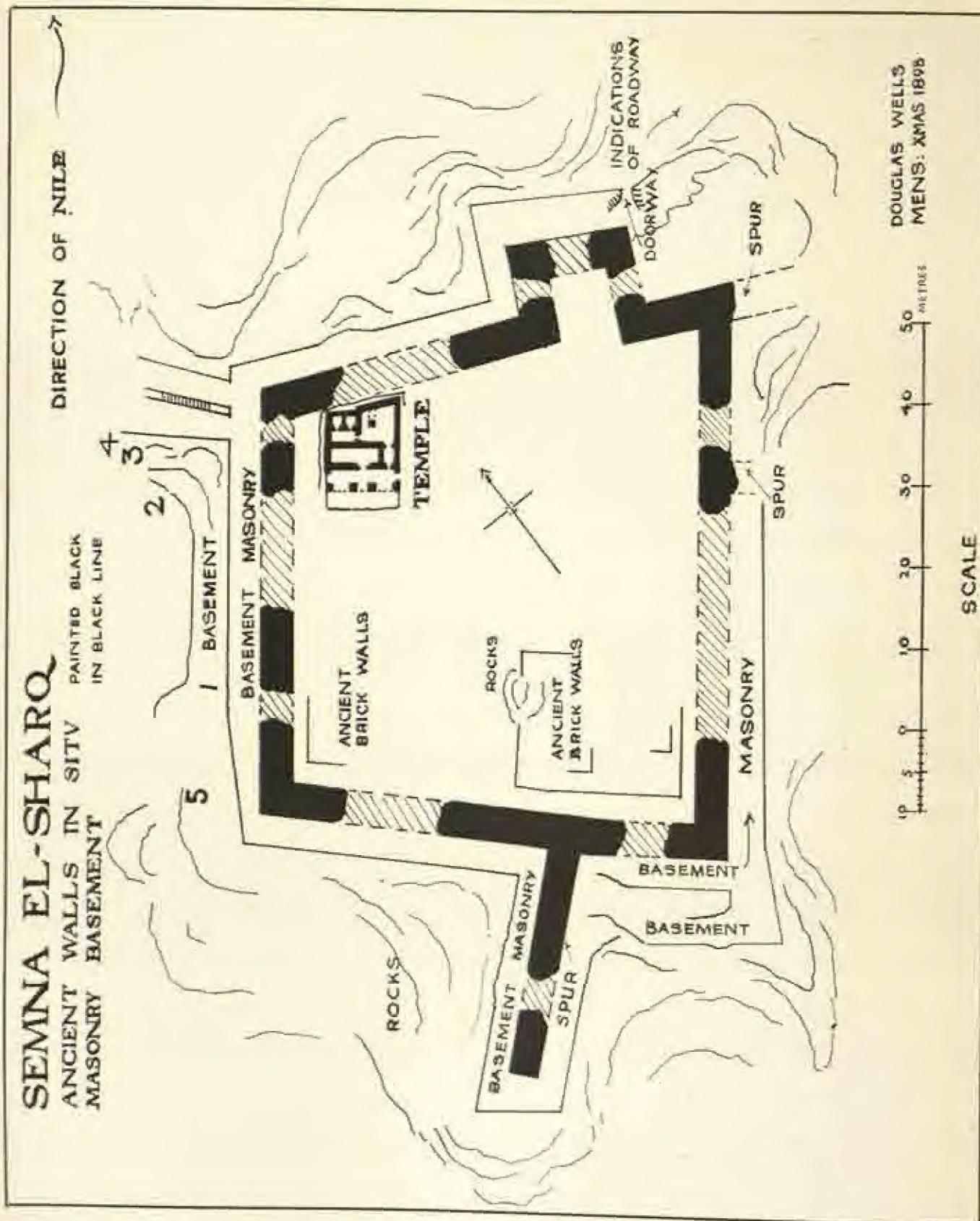
<sup>1</sup> In the plan of Bahen (Pl. XXVI) may be seen a similar outbuilding at the north-east angle; this Dr RANDALL-MACIVER suggests may be a tower for defending the ditch and outer walls.

<sup>2</sup> DR BUDGE (*op. cit.*, Vol. II, p. 270) tells us that the temples in the two fortresses are "perched on the top of rocks 400 feet high." And yet he had visited the place!









across the Nile. The axis of the reef may be described as lying north-west and south-east; in cutting through it the Nile pours down its waters with great violence just below the western wall of the fortress. The rock on which this stands is cut off from the mass of the *gebel* behind it to the east by a narrow gully, through which a road, still clearly to be traced, passes along the eastern side of the fortress. As one ascends this road from the north a branch road is seen near the highest point trending towards the west and leading to the castle gate. The rock bearing the fortress is fairly level at the top, but this natural condition has been not a little assisted by art. On the south side the rock is steep, especially as it approaches the river; both at the south-west and at the south-east angles walls of large stones were built as substructures. On the west, the face overhanging the river is very steep, indeed almost vertical in places; scattered about on this western front are most of the inscriptions giving the levels of high Niles in the XIIth Dynasty. The water flowing past this face more nearly resembled a waterfall in the month of December 1898 than that of any other of the branches lying between the two fortresses. The current flows swiftly and smoothly until the north end of the narrow channel is almost reached, when it drops suddenly in a mass, roaring vigorously as it battles its way along. Towards the north the fortress-rock presents quite an easy slope, always rocky but without steep or difficult places.

The above description will suffice to indicate the natural strength of the position. Although it was commanded by the ridge on the east this was far enough removed not to constitute a menace. On this ridge is a spot that seems to have been utilized as an outlook. Southward from the fortress a good view up the river is obtained, and similarly towards the north the view is unobstructed for a long distance. The scene is one of the most utterly rugged desolation, with only here and there a few patches of green close by the river side.

The fortress makes use of all the available area at the top of the rock by means of a basement of dry-laid stones similar to the basement at Semna el-Gharb already described. The stone substructure on which the brick walls rest is considerably wider in proportion to these than at Semna el-Gharb, but the brick walls themselves are thinner.

From the north wall project the remains of a tower, in the direction of which the road of approach leads. There seems to be no doubt that the doorway was on the east face of this tower, but the north and west walls have been broken through in such a way that the openings on the three sides now resemble one another closely.

On the south side of the fortress projects a brick wall no less than 28 metres long resting on a masonry basement; this wall completely covers a projecting spur of the rock. Two similar brick walls covering spurs of rock may have projected from the east wall; but of these the indications are not clear.

On the west side, near the north-west angle, is a well-preserved staircase of steep steps descending to the water between two thick walls; the whole is of dry-laid masonry.

The bricks used in the walls of this fortress are of clean alluvium very free from stones or broken potsherds. In some places the brickwork rests directly upon the rock, but elsewhere it stands on the stone platform above described. As at Semna el-Gharb the bricks are laid in horizontal beds. Above every fourth course is a mortar

joint thicker than elsewhere, and in these thicker horizontal joints or beds mats of vegetable fibre—dry *halfa*-grass—are seen. In many cases these mats are laid double, i.e. one layer with the leaves lengthways along the wall and a second with the leaves laid crossways above it. The thin leaves and stems of the grass are fastened together by cords formed out of the long leaves and woven in and out of the stems. The bricks, which are not very exactly made, measure  $0\cdot32 \times 0\cdot15 \times 0\cdot08$  or  $0\cdot09$  m.

Timber bonding is dotted about with a liberal hand in the substance of the walls, both transversely and longitudinally; no system can be observed in the arrangement. The pieces of wood are neither long nor straight.

Within the enclosure of the fortress is a small temple, fairly well preserved but much entangled with the houses of sundry natives who live in and around the ancient building, finding its venerable brick walls—these still stand to a good height—a welcome protection against the keen winds and against marauding beasts. Plans of the temple may be seen in LEPSIUS, *Denkmäler*, Part I, Pl. 113 and also in BUDGE, *op. cit.*, Vol. I, p. 588.

Although the main road, judging by the position of Bühen, Matuka, and some remains of forts even further south than Semna, was on the west side of the river, as it still is, yet there are a considerable number of *graffiti* on the rocks leading to Semna el-Sharq from the north. There are doubtless some, too, on the west side, but I did not observe any.

#### IV. NOTES ON THE POSITION OF THE INSCRIPTIONS AT SEMNA RELATING TO THE LEVELS OF HIGH NILE.

These inscriptions were first observed by LEPSIUS in 1844, and have on various occasions been studied by Egyptologists, though but few have found occasion themselves to penetrate the barren recesses of the Bath el-Hagar. I shall on no account venture to submit any opinions on the value or true readings of the inscriptions, but shall merely offer a few notes on the positions occupied by them. I have seen no such notes published, and yet I believe the question of their position to be one of great importance<sup>1</sup>.

Some students believe that, in the years specified in the inscriptions, the water rose to the actual positions where the records stand. According to others, however, these were placed at a definite fixed height above the actual levels of high Nile, which, it is assumed, were much the same as at the present time; but what the exact interval is, on this view, supposed to be, I cannot say.

The greater number of the inscriptions are at the east side of the cataract, some being cut upon the rock and some upon the substructure of masonry that supports the fortress of Semna el-Sharq. It will be recalled that the brick walls of this fortress rest for the most part upon a basement of dry-laid masonry. The stone-work of this basement has in it a few blocks of some size, but the majority of the pieces are not very

<sup>1</sup> Mr SOMERS CLARKE has evidently not seen the final volume of the text to Lepsius' great work, which appeared only in 1913. In this volume (*Textband* V, pp. 229–225) Lepsius carefully notes the heights of the more important records of the Nile-levels, giving a valuable diagram, and does not appear to doubt that the high Nile actually reached the points where the inscriptions occur. Whatever the truth of the matter may be, Mr SOMERS CLARKE's remarks and objections will retain their interest and importance.—ED.

large, and owe their rectangular shape either to the natural cleavage of the material or to very primitive instruments, probably stone hammers. This being so, the resultant masonry is not at all well calculated to bear the strain of a great and roaring mass of water<sup>1</sup>. To give an idea of the force of the water that rushes over the cataract at high Nile it may be mentioned that when, during the Wolseley expedition, it was decided to pass up this place some stern-wheel steamers, it required a thousand men at the ropes at the highest steam-power available to move each boat against the current.

The inscription of which the position is marked on my plan (Pl. XXXII) as 1 stands at the highest level. It is not cut on the rock but on a long thin stone of the basement, not more than a metre below its top level, in other words not more than a metre from the lowest courses of the brickwork.

Inscription 2 is carved in the natural rock lower down than no. 1. This inscription and another beside it are on the rock that bears the flight of steps leading down to the water.

Inscription 3 is close to the preceding, facing south and on the same shoulder of rock.

Inscription 4 is on a block of stone forming part of the south wall of the spur containing the staircase. It is as much as seven metres beneath the top of the artificial basement on which the brickwork stands.

Inscription 5 is not more than one metre below the top of the basement, and is cut on the rock. There are sundry other inscriptions.

We must first consider the probable result should the water have risen as high as is indicated by Inscriptions 1 and 5. No. 1 is on an artificial construction well enough suited to bear the pressure of a heavy brick wall, but not to withstand the rush of a volume of water. In addition, no building material is more susceptible to damp than sun-dried brick. It can hardly be doubted that the damp would have worked its way up through the short interval of a metre, and we should have witnessed the result of this either in extensive dilapidations or in considerable patchings. This, however, is not the case. The lowest courses of brick, resting on the masonry, are perfectly well-preserved and sound.

Inscription 4, as before stated, stands not on the rock but on a piece of stone forming part of the south wall of the staircase. At the time I visited Semna el-Sharq, in December 1898, the water was rushing by with tremendous velocity at a considerable distance below the inscription, and I should doubt whether it is at present reached by the high Nile. The masonry here does not consist of large and heavy stones; on the contrary, the outward skin is but one stone in thickness, the stones being of fair size but not bonded into the backing, which is of smaller loosely placed stones forming a mere filling. There is nothing here that would enable the stone to resist the violent rush of the waters almost at right angles to the surface. With the water at the level of Inscription 1 nearly every part of the masonry enclosing the steps would be immersed and, in all probability, carried away.

<sup>1</sup> It should not be overlooked that within the faces made of the blocks comparatively small stones and even chips were also used. This method of building sufficed to sustain the weight imposed upon it, but was quite unsuited to withstand a rush of water.

It has been stated that Inscriptions 1 and 5 are but a metre below the top of the stone basement, which is on the same level as the platform forming the floor of the fortress. If the waters rose to the level of these inscriptions, the fortress would have been inaccessible except by boat; for not only would the northern and southern faces have been isolated, but also the neck which separates the castle rock from the main ridge would have been submerged, and that not in standing water but in a swiftly moving stream of some volume.

Is it probable that those who laid out, with so much skill, the plans and general arrangements of the two fortresses can have overlooked the facts above named? No traces of a causeway can be seen. Perhaps, for the time, the water was considered as a ditch.

The steep face of rock at Semna el-Sharq is well adapted for use as a Nilometer of a rather primitive description. Near the western fortress there is no similar face of rock.

Thus I venture to believe that if the waters at Semna el-Sharq actually rose to the highest levels indicated, and did so a considerable number of times, that fortress and much of its masonry substructure would inevitably have been ruined. Also I would suggest that the position of the inscriptions, whether on the masonry or on the rock, indicate that the substructures we now see, the great ditches, glacis, etc. all belong to the original buildings of the XIIth Dynasty. Most probably the greater part of the brickwork is also of that period. The Egyptian kings were past-masters in the art of blowing their own trumpets. Whatever Thothmes III may have done he would be sure to have made the most of. The inspection of the walls which I was able to make during my stay at Semna, and which was not assisted by careful excavation, did not induce me to think that any very great repairs had been executed by Thothmes. The knowledge, resourcefulness, and ingenuity that are displayed, belong, as I believe, altogether to the XIIth Dynasty, or are due to experience gained still earlier.

#### V. BUILDING IN BRICK.

In the above description of the fortresses all references to the methods used in the building of their brickwork have been reserved until the last, in order to avoid useless repetition.

The bricks themselves are in every case made of Nile alluvium dried in the sun, and are always large. Whereas for private works bricks of a handy size, similar to those made at the present day, were used, all public works were constructed of the large bricks. These are, as a rule, far more carefully formed than the others, and are considerably harder. The hardness of bricks depends not a little on the length of time during which they are exposed to the sun before use. In order to harden the clay further, chaff (*tibn*) broken up rather small was often employed, as it is to this day; this is mixed closely with the mud, after the latter has been rendered very plastic; the compound is then left to stand a few days, and then made up into bricks.

In dealing with the dimensions of sun-dried bricks it must always be borne in mind that the rather primitive methods of manufacture and the number of the wooden moulds employed—these would wear out quickly—together with the variation in the

nature of the clay, would naturally lead to considerable differences in the sizes of the finished bricks.

Dimensions of the bricks:

Semna el-Sharq	$0\cdot32 \times 0\cdot08 \times 0\cdot15$ m.
Semna el-Gharb	$0\cdot32 \times 0\cdot08 \times 0\cdot14$ m.
Matuka	$0\cdot31 \times 0\cdot07 \times 0\cdot16$ m.
Dorgaynarti	$0\cdot32 \times 0\cdot08 \times 0\cdot10$ m.]
	$0\cdot35 \times 0\cdot35 \times 0\cdot10$ m.]

I have not anywhere else, except on the island of Mayanarti, met with bricks of so great a size, or of such a form, as the last-named, which may belong to a later period.

The largest of the bricks named in my list is but a very small thing as compared with the mass of a wall 7 to 8 metres in thickness.

In such a mass, when composed of small parts, there is a tendency to separate in the middle longitudinally, this tendency being due to the unequal strains that may fall upon it owing to weakness either in the foundations or in the subsoil. It cannot be denied that the Egyptians were often very careless about foundations, and that they often found themselves in difficulties on account of a subsoil composed of alluvium and subject to saturation at high Nile, a subsoil that would be solid and resistant at one time, and soft and yielding at another.

Another very serious trouble also presented itself. A brick made of unburnt clay, however well it may have been dried in the sun, is not very resistant. A mass of these bricks behaves just as a mass of lead might do, resembling a slowly moving fluid when subjected to strain. Further, it must be remembered that the mortar used was nothing but a preparation of wet Nile mud. The difficulty which presented itself to the builders was to find a means of keeping the brickwork from spreading or splitting longitudinally whilst the mud mortar was drying; the latter kind of movement was particularly hard to prevent. In the mortar joints at Matuka a large quantity of granite broken into small pieces is seen. Since in all other cases river mud is used both for the bricks themselves and for the mortar, it seems likely that some special purpose was served by the granite gravel. Is it not possible that it was meant to assist in keeping the courses of brick from slipping?

In Upper Egypt, where the summer temperature often considerably exceeds 100° Fahrenheit, and for weeks together seldom is below that mark, it nevertheless takes a crude brick wall of 0·75 m. thickness quite a year to get thoroughly dry and firm in its interior. This I assert from personal experience, and not merely from hearsay. How many years, then, must it not have taken for the inside of a wall of 7 or 8 m. in thickness to become dry and hard? Certain of the great brick walls measure as much as 12 m. in thickness, and at Matuka we even find one 16 m. thick.

Examining the fortress walls at Matuka, Semna el-Sharq, Semna el-Gharb, etc. from a little distance away, we can observe series of clearly defined horizontal lines due to the thickening of the mortar joints at definite intervals one above the other. We can also observe irregular rows of dark spots, which are formed by the shadows cast in holes in the brickwork. These latter M. CHOISY interprets as the places where "putlogs" were inserted to carry the scaffolding made by the workmen<sup>1</sup>. Upon these

<sup>1</sup> A. CHOISY, *L'art de bâtir chez les Égyptiens*, Paris, 1914, p. 31.

"putlogs," he tells us, boards were placed for the workmen to stand on. One of the neatly-drawn diagrams for which M. CHOISY is famous explains his fancy in this matter. In the description of the fort at Ikkur before quoted<sup>1</sup> the writer falls into the same error in consequence of not having duly examined the construction of the walls. Both authors thus credit the Egyptians with the methods of scaffolding they have seen utilized in Europe.

In criticizing their view, I must first return to the horizontal lines that have been described as appearing at intervals in the walls in the form of joints thicker than those above or below them. At Semna el-Sharq we find these joints above every fourth course of bricks, and at Semna el-Gharb above every fifth course. At Matuka these joints are not very conspicuous; where they do occur they are above every eighth course. In these courses we find the mats of *halfa*-grass already described<sup>2</sup>. It is obvious enough that the object of these mats was to check the tendency of the bricks to move or spread in the still soft mortar. In many cases the grass is found in each of the horizontal mortar joints. But there can be little doubt but that these thicker beds of mortar further indicate that the builders were instructed to lay four courses or more, as the case might be, and then to discontinue the work until an equal level was attained all round the building. By this means many chances of movement or of uneven settlement would be avoided.

It should be stated that in all the Nubian fortresses described in this paper the brickwork was laid in horizontal courses, and not in the undulating courses that are so often seen in Egypt.

In addition to the use of these mats of *halfa*-grass, immense quantities of timber bonds were laid both longitudinally and transversely in order to bind together the great semi-plastic masses of brickwork. This brings us to M. CHOISY's theory of the "putlog" holes. It is the decayed ends of the transverse timbers that he mistakes for marks of scaffoldings. M. CHOISY, in his three months' tour in Egypt, worked with amazing industry, but when he wrote his book he drew very largely on his imagination; nor is it very easy to ascertain from his expressions what he thinks the ancients may or might have done and what they actually did. The value of his book is sadly diminished in consequence of the very positive way in which his theories are stated, and the manner in which these theories are mixed up with observed facts. The point here under consideration is a typical example of such misstatement, supported by a pretty little diagram or two.

The Egyptian methods of building with sun-dried bricks, as everyone may see for himself who has lived in the country, studied its monuments, and had brick buildings erected there under his own eye, are much the same now as they were centuries ago. The builders do not make use of scaffoldings but stand on the wall; as it rises so do they. Their bare feet moving about on the top of the layer of bricks already laid actually help to press the bricks into position and to solidify the work.

M. CHOISY even finds that the "putlog" holes are placed vertically apart at a distance of six feet, just as we place them now. The ties of timber bonding, which were no "putlog" holes, are in reality much nearer together than that; at Ikkur they are 90 cm. apart in the vertical direction.

<sup>1</sup> *Archaeological Survey of Nubia: Report for 1908-9*, Cairo, 1912, Vol. 1, p. 24.

<sup>2</sup> Above, p. 174.

At Matuka they are used but sparingly. In the inner western wall they are laid where the wide mortar joints occur, i.e. on the top of each twelfth course of bricks and about one metre apart vertically. The bond is used for the most part transversely through the thickness of the wall.

At Semna el-Sharq bond timber is employed in large quantities and without much systematic arrangement; some pieces are longitudinal, some transverse.

At Semna el-Gharb the walls are riddled with timber ties, mostly of the transverse kind.

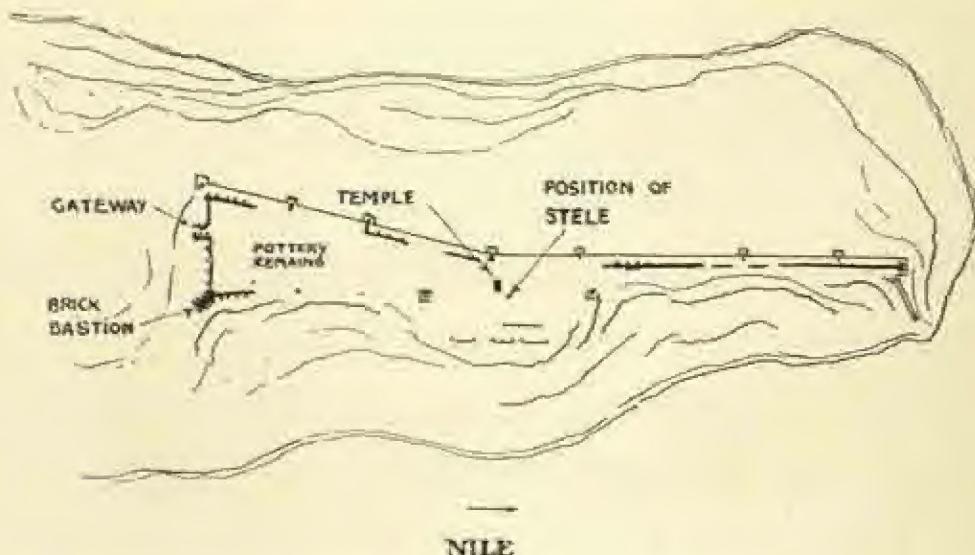
Thus in none of the fortresses studied in this paper does it appear that the timber bonds have been placed at a vertical distance of six feet apart; nor am I aware that such is the case with any of the great brick walls in Egypt. I venture to assert that no evidence exists for the employment of timber scaffolding, in our sense of the word, in connection with any ancient Egyptian building.

In conclusion, I must express my hearty acknowledgements to Mr R. DOUGLAS WELLS, who not only assisted me in collecting the materials for this paper and taking the requisite measurements, but has also been good enough to prepare many of the plates for the printer.

## A NOTE ON THE FORTRESS OF GAZIRAT EL-MALIK

BY R. DOUGLAS WELLS, F.R.I.B.A.

WHILST working with Mr SOMERS CLARKE at Semna during the winter of 1898-9, I visited amongst other sites of ancient Egyptian fortresses the Gazirat el-Mahik, also known as Malikarti. The island is about three-quarters of a mile long and half a mile broad and lies some four miles to the north of Semna. There are two hills of considerable height, and it is on the more northern of the two, occupying a very commanding position, that the fortress has been built. Some cultivated land lies down by the river, but most of the ground is barren, though the greater part is covered with alluvial deposit. The



accompanying sketch plan, which is only roughly paced out, shews the general lines of the building. The length of the fortress is about 420 metres, and the width at the southern end 64 metres. The northern side is extended along the crest of the hill by a line of buttressed brickwork, and a stone rampart runs down from the most northerly point towards the river on the east. Along this side the builders relied for a foundation chiefly on the natural rock, a hard siliceous sandstone resembling granite, which reached up to the line of the foundation of the mud brick walls. On

the west side, the slope being more gradual, a stone terrace has been built along the whole length of the building, following round the sides of the buttresses as at Semna. The stones employed are small and the mud brick walls both in thickness (about six metres) and in construction (with the timber ties and layers of *halfa*-grass at every five courses) in every way resemble the work at this last-named fortress. The gateway lies at its southern end and is protected by a special system of buttresses. The temple is situated towards the centre of the east side oriented from west to east. It is built of sandstone probably from Halfa. This temple has since been excavated under the direction of Dr E. A. WALLIS BUDGE in 1905, but at the date of my visit there was only about a metre shewing above ground, and the east end was obliterated. The south outside face was evidently finished ready for the carving; this, however, was never executed. The west and north sides, on the other hand, were bricked round and not intended to be seen. The whole of the interior that was visible was carved and the figures painted. There was also a fragment of a stele in red granite bearing the cartouche of Semusret III. The temple was probably dedicated to him by the later king Tuthmosis III whose cartouche, partially destroyed, I found on one of the building stones lying about. The stele has since been removed to Wâdy Halfa.

## THE TEMPLE AT MIRGISSE

BY MAJOR H. G. LYONS, F.R.S.

IN the early part of 1892, when quartered at Wâdy Halfa, I first visited the ancient Egyptian fortress which lies on the west bank of the Second Cataract and which was generally known as the fort of Matâka. Further enquiry elicited the statement that the name Matâka was that of the district, while the fortress itself was known as Mirgisse. In May of the same year I spent a day in making preliminary measurements of the fort, and in examining the small temple of which traces still remained in the northern angle of the enclosed area. At that time the Dervish outposts were not very far to the south of Sarras, and consequently it was not always advisable to visit places on the western bank of the Nile without taking precautions. However, on the 4th and 5th of August in the same year I was able to visit the fort again and to measure up the temple.

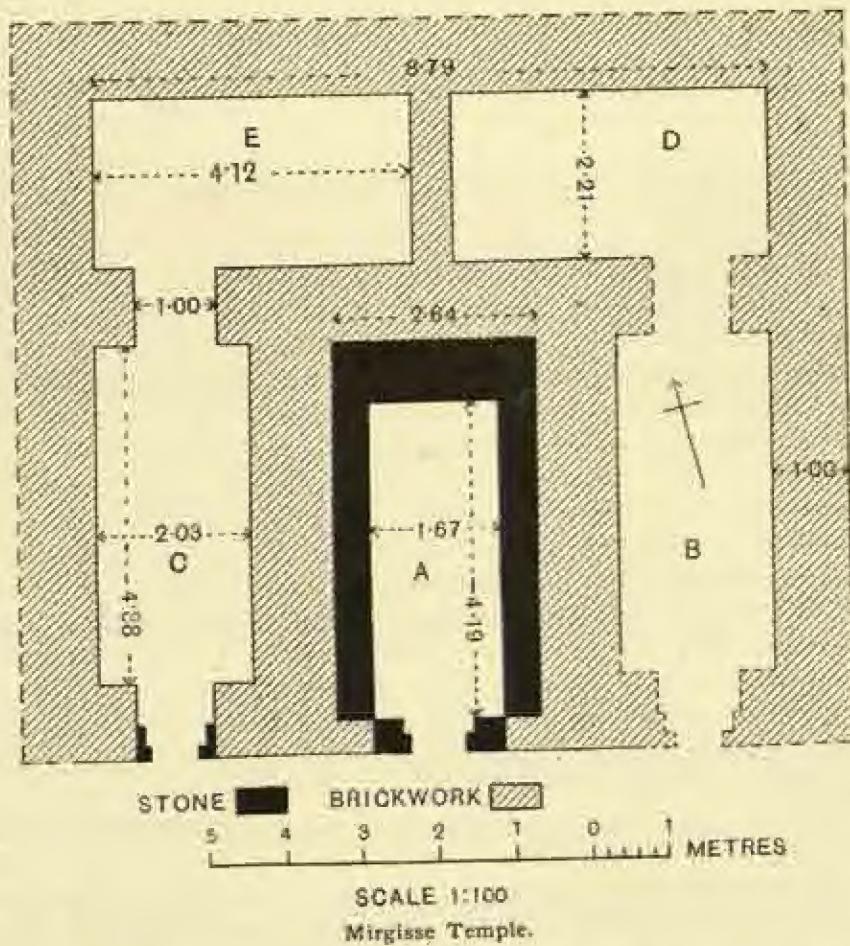
Only the lower portions of the walls remained, but it was possible to make out the plan of the building, which is given in the accompanying figure. The walls were of mud brick, but portions of the sandstone blocks which had been built round the doorways still remained in position at the entrance to two of the rooms. The building contained five rooms, three of which opened to the south, while the other two, which lay behind them, were entered from the two side rooms.

The centre room, the principal chamber of the temple, was floored with sandstone blocks, and the walls were lined with dressed blocks of the same stone. This apparently represented a later repair or restoration, as will be seen from the plan; for the centre room is now the narrowest of the three, and its walls have been increased by the thickness of the stone lining.

The remains of the walls were (speaking from memory) seldom as much as 0·5 m. high, and often less, so that there was small prospect of finding objects which might furnish information concerning the history of the temple or of the fort. In the centre room (A), however, portions of a small burnt-clay stela, which bore the name of Senwosret III, were found, as well as two small sandstone stelæ; the latter were in a very bad state of preservation, but the name of Senwosret III on one of them<sup>1</sup>, and less certainly that of Amenhotep III on the other, were still decipherable. Fortunately a few weeks later I found an undamaged duplicate of the clay stela in the northern temple at Wâdy Halfa. Both these stelæ are in the Museum at Cairo. They measure approximately 25 × 30 cm., and are about 12 cm. thick. They are made of a clay

<sup>1</sup> This may just possibly be *Cairo* 20702; see LANGE-SCHÄFER, *Grab- und Denksteine*, vol. II, p. 323. [Ed.]

which has been burned to a reddish-brown colour, after the design, inscription, etc. had been stamped on them. Spots and patches of what appears to be a black resin occur on the surface of the stelae, but the inscription on one at least is quite legible. Unfortunately I am unable to find the copy which I made at the time. I recollect, however, that the oval for the name of the place of which the god Horus is described as being lord, was left blank, as though this were to be filled in when the stela was placed in position.



In the eastern front room (B) two pieces of sandstone were found which had evidently been portions of the same block originally. The inscription was damaged, but showed two cartouches of doubtful reading.

The two rooms (B and C) on either side of the central chamber measure 4.38 m by 2.03 m, while the centre chamber now measures 4.19 m by 1.67 m, though its width would have been about 2.7 m, before the stone lining was introduced.

The two rooms in the rear (D and E) are each 4.12 m by 2.21 m. In the eastern one of these (D) quantities of roughly made pots were found together with two or three of better workmanship.

The axis of the temple bears 14° 30' west of true south.

## AN ANCIENT LIST OF THE FORTRESSES OF NUBIA

BY ALAN H. GARDINER, D.LITT.

THE interesting paper on the fortresses of Nubia, which Mr SOMERS CLARKE contributes to this number of the *Journal*, affords me a suitable occasion for the publication of a small discovery of my own on the same subject. Among the papyri found in 1895-96 by Mr QUIBELL in a late Middle Kingdom tomb beneath the Ramesseum, and subsequently entrusted to me for publication by Prof. FLINDERS PETRIE, was a much-battered roll, the fragments of which were very skilfully put together a few years ago by Herr IRSCHER, of the Berlin Museum. The manuscript turned out to be one of those rare vocabularies, or collections of words arranged in groups according to meaning, which appear to have served the same purpose in the Egyptian schools as spelling-books, dictionaries and encyclopaedias serve with us. The difficulty of restoring the lacunae, and the many lexicographical puzzles presented by this papyrus have been the cause why I have delayed its publication so long. Even now I am prepared to give no more than an excerpt; and all that I will say at present with regard to the general contents of the treatise is that it comprises a total of 323 different words, besides a kind of postscript containing a very curious series of abbreviations for twenty distinct types of variously marked cattle. Among the categories of words represented are the names of oils, of birds, of plants, of vertebrates, of cakes or kinds of bread, of cereals and of parts of the body. In the midst of these is also a list of geographical names of the highest importance, beginning with the fortresses of Nubia, and continuing with a series of the towns of Upper Egypt.

The great value of this geographical section of the papyrus resides in the facts, firstly, that the places appear to be scrupulously arranged in geographical order from south to north, and secondly, that no other list of nearly so early a date has come down to us. The precise date of the manuscript is not quite easy to fix, but we shall not be far wide of the mark in placing it, together with the rest of the papyri belonging to the same find, about one hundred years before the commencement of the Eighteenth Dynasty.

The words are arranged in vertical columns, and every tenth word is accompanied by a number. The Nubian fortresses begin a new column; this is preceded at three different places in its height by the words *mnn n* "the fortress of," which description, accordingly, was meant to be understood before each individual name.

The text is as follows:—



- \* The last group in this name is a *crus*; □ (or ) seems clear, but the lower sign, which is damaged, shows points of difference from .
- \* Dubious traces of the two lower signs.
- \*
- \* Only the horizontal base is left; is exceedingly probable.
- \* Palaeographically would be slightly preferable to ; however the sense speaks for the latter. Perhaps should be substituted for ; only a trace remains.
- \*
- \* The top of this sign is damaged; practically certain.
- \* A trace which may well be the cross-stroke of .
- \*

(Next column.)



- \*
- \* seems certain; a small square lacuna follows it, at the top of which a straight horizontal line is still visible.
- \* is by no means certain, looking rather like a wavy horizontal sign.
- \* The last sign is certain, and is preceded by a small space large enough for , but possibly never occupied; if so the tops alone are preserved.

Then follows the list of the towns of Upper Egypt, beginning with Elephantine, Ombos, Edfu, and so on.

## TRANSLATION.

	The fortress of	(1) "Repressing-....." ( <i>D'ir-.....</i> ), (2) "Khakaure'-justified-is-powerful" ( <i>Sḥm-Itk'wr'-m'hru</i> ), (3) "Warding-off-the-Bows" ( <i>Itaw-pdiw</i> ), (4) "Repelling-the-Inu" ( <i>Iṣsf'-Iawnw</i> ), (5) "Curbing-the-countries" ( <i>W'f-h;smt</i> ) (6) "Subduing-the-Oasis-dwellers(?)" ( <i>Dr-Wtūw</i> ).
	The fortress of	(7) Iken ( <i>Ikn</i> ), (8) Bihen ( <i>Bwhn</i> ), (9) "Embracing-the-two-lands" ( <i>Ink-t'wl</i> ).
(1)80	The fortress of	(10) "Repelling-the-Mezain" ( <i>Iṣsf-Md'w</i> ), (11) Ma'am ( <i>M'm</i> ), (12) Baki ( <i>B.ki</i> ), (13) Senmet ( <i>Samt</i> ), (14) Elephantine ( <i>bw</i> ), (15) ..... ( <i>Dd...?</i> ), (16) ..... (17) Silsilis ( <i>[Hu]y</i> ).

## COMMENTARY.

In all, there are seventeen names of fortresses to be considered. At first sight it might appear doubtful whether the five names at the top of the second column really refer to fortresses, since the descriptive heading *mnw n* "the fortress of....." is omitted at this point. However, on any other view it would be difficult or impossible to explain the repetition of the name Elephantine in the sixth place of the second column; and it is reassuring to note that both Senmet (Bigeh) and Yēb (Elephantine) are known, on independent evidence, to have been localities where fortresses existed. We may, therefore, feel some confidence in regarding the first seventeen names as the names of fortresses or fortified towns, mostly in Lower Nubia, and the following names as those of the various towns of Upper Egypt. The two series of names overlap geographically between Elephantine and Silsilis.

The ending of the sandstone formation a little north of Silsilis appears to mark out that place as the natural boundary of Nubia; nowadays, Nubian language, culture and race begin only a few miles further south, at Daraw. This may well be the reason why the list of Nubian fortresses is made to terminate at Silsilis. There is some evidence that in the earliest times Elephantine was regarded rather as an outpost in Nubian territory than as the frontier of Egypt proper; though in the lists of the nomes and of the towns of Egypt, the archetypes of which probably go back to the Fifth Dynasty, the frontier appears to be the First Cataract, or more precisely, the island of Bigeh. We may hazard the conjecture that the co-existence of these two conflicting views may be the explanation of the seemingly unaccountable overlap in the papyrus.

It will be seen later on that the second and third names in the list of fortresses are identifiable as Semneh (Semnet el-Gharb) and Kummech (Semnet esh-Shark) respectively, so that the southern starting-point of the list may be reasonably assumed to be the extreme limit of the Second Cataract<sup>1</sup>. By way of anticipation it may be said that, wherever verifiable, the order of the names in the papyrus proves to be the correct topographical order from south to north; this fact ought to prove of value in the attempt to identify those place-names for which we have little or no corroborative evidence.

In the following notes on the individual fortresses I have thought it might be useful to give such references as I have found in the books immediately accessible to me; but I make no claim to anything like bibliographical completeness. The earliest book from which I quote is F. CAILLIAUD's *Voyage à Meroë*, Paris 1826; and for this I sometimes employ the letter C alone. LEPSIUS is, of course, the principal authority: the plates of his *Denkmäler aus Aegypten und Aethiopien* appeared in Berlin between 1849 and 1858, but the descriptive text dealing with the Nubian monuments (*Textband v.*, edited by W. WRESZINSKI) was not issued until 1913; it suffices, as a rule, to quote the text, since references are there found to the plates in the larger work. Professor STEINDORFF, with several other German archaeologists, visited the Second Cataract in 1899–1900, and made many valuable observations; his complete report has not yet appeared, but I shall frequently have occasion to refer to his preliminary paper, published in the Proceedings of the Royal Saxon Society of Sciences<sup>2</sup>. The results of this journey are further incorporated in the latest editions of BAEDEKER's *Egypt*—I quote from the seventh English edition, of 1914. Professor BREASTED's second expedition to Nubia in 1906–7 included the complete photographic survey of the southern end of the Second Cataract; but here again, unfortunately, we have nothing to refer to but a brief, though highly important, preliminary report<sup>3</sup>. Dr BUDGE's work on *The Egyptian Sudan* (two vols., London 1907) gives an account of work done there in the course of various visits from 1897 onwards. For Wady Halfa Dr RANDALL-MACIVER's excavations<sup>4</sup> in 1909–1910 are of special importance.

(1) "Repressing....." Fortresses (2) and (3) being known,

as we shall see, to be identical with Semneh and Kummech respectively, this may well be the fort called by STEINDORFF (p. 231) *das Sülfort von Semne*, lying about 1 kilometer south of the well-known fortress of Semneh on the west bank of the Nile, but, unlike

<sup>1</sup> No mention can have been made in our papyrus of the fortress of Kerma, near the Third Cataract. This has recently been investigated with great success by Dr GEORGE REISNER, who shows that its remains date back as far as the Sixth Dynasty. One of the ancient names of Kerma may have been *Tnb t'mnnm*, "The-walls-of-Amenemhat," see *Boston Museum of Fine Arts Bulletin*, vol. xii (1914), p. 15.

<sup>2</sup> GEORG STEINDORFF, *Vorläufiger Bericht über seine im Winter 1899/1900 nach der Oase Siwa und nach Nubien unternommene Reisen*, in *Bericht über die Verhandlungen der Königlich Sachsischen Gesellschaft der Wissenschaften zu Leipzig, philologisch-historische Classe*, vol. 52, Leipzig, 1900, pp. 209–39.

<sup>3</sup> J. H. BREASTED, *Second preliminary report of the Egyptian Expedition*, in *American Journal of Semitic Languages and Literatures*, vol. 25, Oct. 1908, no. 1, pp. 1–110.

<sup>4</sup> *University of Pennsylvania, Eckley B. Cox Junior expedition to Nubia*, vol. VII: *Buhén*, by D. RANDALL-MACIVER and C. L. WOOLLEY, Philadelphia, 1911.

the latter, in the midst of the desert. No further details are given by STEINOPFF, but this appears to be the rectangular building described by MR SOMERS CLARKE at the end of his account of the fortress of Semneh (above p. 172).

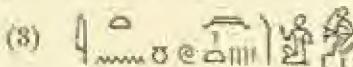


*Shms* (or *Hrp*-?) *Hk'wr'-m'* *hrw* "Klukkuurö"-justified-is-

powerful," **سمنة** (C), Semneh or Semnet el-Gharb, **سامن** in a Coptic inscription published LEPsius, *Denkm.*, VI, 99, no. 541. The identification is proved by a *graffito* (*op. cit.*, III, 151 v; *Textband* V, 202) on a fallen block near the fortress of Semnet el-Gharb; this recorded the height of the Nile in the 3rd year of Sebkhotep II.



"when the Royal chancellor and general Remsonbu was commanding in the fortress Khakanrd'-justified-is-powerful." CAILLIAUD gives a plan of the Cataract at this point, with the fortresses on each side of it (*Planches*, vol. II, Pl. 23), and various views of the temple (*ibid.* Pls. 24—26) and copies of its sculptures (*ibid.* Pls. 27—29); also a description (text, vol. I, ch. 20). LEPSIUS (*Textband* v, 190—205) has a long account, and publishes plans, scenes, graffiti and other monuments. A later temple, built by Tahruka, was excavated by Mr CROWFOOT, see BUDGE, vol. I, pp. 481—8. Professor BREASTED (pp. 106—8) did much photographing here, and the sculptures were also studied by Professor STEINBORFF (p. 232). For Mr SOMERS CLARKE's very valuable study of the fortress, see above pp. 169—172.



Semnet esh-Shark. This identification is also certain, since the epithet "warding-off-the-Bows" constantly follows the name of the god Khnum locally worshipped at Kummeh: at Semnet el-Ghurb Dedua is the principal deity, though Khnum is also mentioned; at Kummeh (Semnet esh-Shark), both in the Middle Kingdom *graffiti* and in the Eighteenth Dynasty temple Khnum predominates, sometimes with the epithet *itnw pdwt*, and rather less often with another epithet "smiting-the-bulls(?)". The name Kummeh does not appear to have been elicited by any enquirer except LERSIUS, who, however, finds confirmation of it in the Coptic *κομματος* given by the inscription quoted in the last paragraph. LERSIUS devotes a number of pages and plates (*Textband* v., 206—225) to the temple and to the *graffiti*. BUDGE (*op. cit.*, index) often refers to the fortress and temple, but adds no new information. BREASTED (*op. cit.*, 107) gives a good photograph of the reef across the river, with the fortress against the sky-line, and has some interesting notes on the Nile levels. On the latter question his evidence does not agree with that of MR SOMERS CLARKE (above pp. 174—176), for he records that to the south-west of Kummeh, as well as elsewhere in the neighbourhood, he found pot-holes in the rocks worn by the high water, which were only 60 cm. below the level of the highest ancient records. MR SOMERS CLARKE's account of the fortress (above pp. 172—174) contains a mass of interesting information not to be found elsewhere.

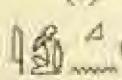
<sup>1</sup> Dr Bunsen quotes an article by M. de Vogüé entitled *Fortifications de Semna et en Nubie* in *Bulletin Archéologique de l' Athénéeum français*, 1855, p. 81 ff.; this I have not seen.

(4)  *Hsf-Tnnw*, "Repelling-the-Inu,"  Uronarti.

STEINDORFF (p. 231) gives this purely Nubian name, and tells us that it means "King's island," Arabic *Gaziret el-melek*, which is the name under which it is known to Dr BUDGE. Mr SOMERS CLARKE's name *Malikarti* is clearly a hybrid, partly Nubian, partly Arabic. CAILLIAUD (vol. II, p. 337) mentions both this island and the smaller one south of it, which he calls  Kagengirah, but describes no ruins. LEPSIUS (*Teatbund* v, 189) can be referring only to Uronarti, when he speaks of a very large island, an hour downstream from Semneh, "completely crowned by a large fortress"; but his account of this fortress, with stone basement and five round bastions, is not easily reconcilable with the interesting description given by Mr DOUGLAS WELLS above (pp. 180—181). STEINDORFF (p. 233) seems to have been the first to discover the fine commemorative stela of the 16th year of Sennusret III, the opening words of which give the Egyptian name of the fortress; they read as follows:—

 "Stela made in year 16, third month of winter, at the time when the fortress 'Repelling-the-Inu' was built." The main text is a duplicate, with some variants, of the famous boundary stela of Semneh (LEPSIUS, *Denkm.*, II, 136, h). The stela of Uronarti was subsequently removed, with great difficulty, by Mr CROWFOOT and Dr BUDGE to Khartum, where it now is<sup>1</sup>; a much foreshortened photograph in BUDGE, vol. I, plate opposite p. 491. The fortress-temple was excavated by Mr CROWFOOT, who gives a good plan, *op. cit.* p. 491. For other antiquities and *grafitti* found on the island see STEINDORFF (*I.c.*) and BUDGE (*I.c.*).

(5)  *Wf-h-swt*, "Curbing-the-countries," possibly to be identified with Shalfak (STEINDORFF, pp. 231, 232), on the west bank of the Nile slightly south of the railway station of سرس (C) Sarras. This is described and planned by Mr SOMERS CLARKE, above, p. 168. Professor STEINDORFF made some small excavations in the interior of the fortress, finding large buildings with thick walls, possibly magazines for weapons or grain, and further a well-built house, perhaps the residence of the commandant. The certainty of the identification here suggested is made questionable by CAILLIAUD's account (vol. III, pp. 258–9) of a much larger fortress high up on a rock by the west bank of the river. This fortress, which he calls دير سلي Deyr-Soule, opposite ارتيس, appears from CAILLIAUD's map (vol. II, Pl. 45) to lie only a little way south of Mirgisséh; I have found no reference to it elsewhere.

(6)  *Dr-Wt-w* "Subduing-the-Oasis-dwellers?" and (7)  *Iken*. These two fortresses lie between no. 5 and Bihen (Wady Halfa), and it is natural and probable to identify them with Mirgisséh and Dabmarti

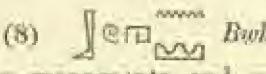
<sup>1</sup> At the last moment Mr D. WELLS learns from Mr SOMERS CLARKE that the stela is still at Wady Halfa.

<sup>2</sup> If this rendering be correct it may possess some significance; we should have to look for a road leading hither from one of the Oases.

respectively; though which is which one cannot determine. For 'Ikn we have further testimony in the smaller boundary stela of Semneh (LEPSIUS, *Denkm.*, II, 136, 1), of which the following is a rendering<sup>1</sup>:

Southern boundary that was made in year 6 under the King of Upper and Lower Egypt Khakauro, granted life for ever and ever, in order to prevent any Negro from passing it in faring downstream or journeying (it) with a boat, (and likewise) any cattle belonging to Negroes; excepting such Negro as may come to do barter in Iken or else on an embassy. Every good thing shall be done with them, yet without suffering any boat belonging to Negroes to pass downstream by Heb<sup>1</sup> for ever.

The fortress on the west bank was known to CAELIAUD as مرقيس Mirqys (vol. III, p. 352), as his map shows; though in the text he once speaks of Mirqisseh (sic) as an island (vol. III, p. 259). Major LYONS, for whose account of his excavations there see above, pp. 182—183, was informed that the name of the place is Mirgisse, but Mr SOMERS CLARKE (see above pp. 165—166) calls it Matuka. Dr BUDGE (vol. I, p. 549) speaks of the fortress as situated at the mouth of the Wady Ma'atuka. In CAELIAUD's map there is an island called دحabet "Dahabet" over against his "Mirqisseh," which may well be Mr SOMERS CLARKE's Dabnarti, STEINDORFF's Dabe. To the account of these fortresses given by Mr SOMERS CLARKE and Major LYONS other writers add nothing of value. I myself visited the spot together with Dr RANDALL-MACIVER some years ago; no special observations were made, but I am able to testify to the impressiveness of these two great strongholds made as a defence against the peoples of the Sudan.

(8)  Bughn Būhen, the Bōor of Ptolemy (IV, 7), known from very many monuments and remains to be identical with وادى حلفا Wady Halfa. See Dr RANDALL-MACIVER's important work, and Mr SOMERS CLARKE's account, above pp. 161—163.

(9)  'Ink-t-wl "Embracing-the-two-lands," and

(10)  Hsf-Md,w "Repelling-the-Mezain." These two fortresses must lie somewhere between Wady Halfa and 'Anibeh. At سرة الغرب Sarret al-Gharb, about 15 miles N. of Halfa, Mr GEOFFREY S. MILEHAM and I recognized that the walls surrounding the churches there were undoubtedly a small fortress of Middle Kingdom date<sup>2</sup>; and it is by no means improbable that this may be the former of the two unidentified places. Concerning the site of the second I cannot even hazard a conjecture; for the fortifications at Farms appear to belong to a much later time.

<sup>1</sup> See too BREASTED, *Ancient Records*, vol. I, § 632, and many previous writers. BAUDACH'S identification (*Geschichte Aegyptens*, 1877, p. 162) with Acina in Pliny vi, 184 is highly problematical.

<sup>2</sup> Heb must be a general name of the district about Semneh. The larger stela from that place (Lep., *Denkm.*, II, 131, 1) names Heb in its opening sentence, "His Majesty made the southern boundary at Heb"; BREASTED is surely wrong in translating the preposition = here "as far as" instead of "at."

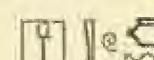
<sup>3</sup> University of Pennsylvania, Eddley B. Case Junior expedition to Nubia, Vol. II: *Churches in Lower Nubia*, by GEOFFREY S. MILEHAM, Philadelphia, 1910, pp. 40-1, with Pls. 30-2.

(11)  *M'm* Ma'am, *عنبه* 'Anibeh. This must certainly be an early spelling of the place-name   , which occurs principally in connection with the god  mentioned frequently on the monuments and *graffiti* between Derr and Ibrim. Ma'am or Mi'am is, however, identical with neither of these places, though BRUGSCH (*Dict. Géogr.*, 247) supposed it to be the latter and BREASTED (*Ancient Records* iv, § 475) appears to hesitate between the two. WEIGALL (*Report on the Antiquities of Lower Nubia*, pp. 116-17) seems to have been the first to identify Ma'am with 'Anibeh on the west bank; in the late New Kingdom the mayors of Ma'am were buried at 'Anibeh, where there are ample traces of a flourishing town, excavated in recent years by Professor STEINDORFF. WEIGALL (*loc. cit.*) describes the remains of a fortress at 'Anibeh, which, from its resemblance to the fortresses at Kubbān and Koshtamneh (Ikkur) he attributes to the Middle Kingdom.

(12)  *B/k' Baki*, قبان (C) Kubbān or كوبان Kubbān (large Survey map of 1908)<sup>1</sup>, on the east bank of the river. This identification is certain and has long been known, see BRUGSCH, *Dict. Géogr.*, 209-10. The fortress of Kubbān, which, as all seem to agree, belongs to the Middle Kingdom, is described by WEIGALL, *op. cit.*, pp. 90-1, and partly photographed both by him and by GARSTANG (*Annales du Service*, vol. VIII, Pl. IX). A rough plan is given by LEPSIUS, *Denkm.* i, 111.

Only a few miles northward from Kubbān is the fortress of Koshtamneh, Ikkur or Kuri (كورى) which Mr SOMERS CLARKE has studied above, pp. 160-161, arriving at the conclusion that the earlier parts of it go back to the Old Kingdom. Either this is not mentioned in the papyrus, or else, as Mr FIRTH has suggested, it was considered to form a unit with Kubbān.

(13)  *Sami Senmet*, Gk. *-σημης*, Bigeh. LETRONNE, arguing from the divine name *τετεροηπις*, seems to have been the first to suggest the identification of *-σημης* =  with Bigeh<sup>2</sup>; and confirmation has been recently afforded by Dr JUNKER's study of certain religious scenes and inscriptions at Philae<sup>3</sup>. See further BRUGSCH, *Dict. Géogr.*, 727-9, and BLACKMAN, *The Temple of Bigeh*, Cairo, 1915. Of the ancient fortress no traces are mentioned by those who have excavated on the spot, but it is mentioned in the tomb of Rekhmire, where its commandant is depicted bringing his contribution of gold, cattle, etc. to the Vizier<sup>4</sup>.

(14)  *Elephantine*, Aram. **אֶלְעָנִית**, Gr. *-ινθη*. The fortress of Elephantine is mentioned both in the scene from the tomb of Rekhmire<sup>5</sup> to which reference

<sup>1</sup> Mr GARSTANG, to whom I am indebted for some notes on the Arabic forms of the names, is practically sure that Kubbān is the right spelling.

<sup>2</sup> See SERME's note, *Zeitschrift für ägypt. Sprache*, vol. 47 (1910), 166.

<sup>3</sup> H. JUNKER, *Das Götterdokret über das Abaton* in *Doukschriften d. kais. Akad. d. Wiss. in Wien*, phil.-hist. Klasse, vol. 56, no. 4, Vienna, 1913.

<sup>4</sup> See P. NEWBERRY, *The Lips of Rekhmire*, Pl. V.

has just been made, and also on a stele dating from the eighth year of Senostris III in the British Museum<sup>1</sup>. What may possibly be the remains of it is described by Mr SOMERS CLARKE above, p. 157.

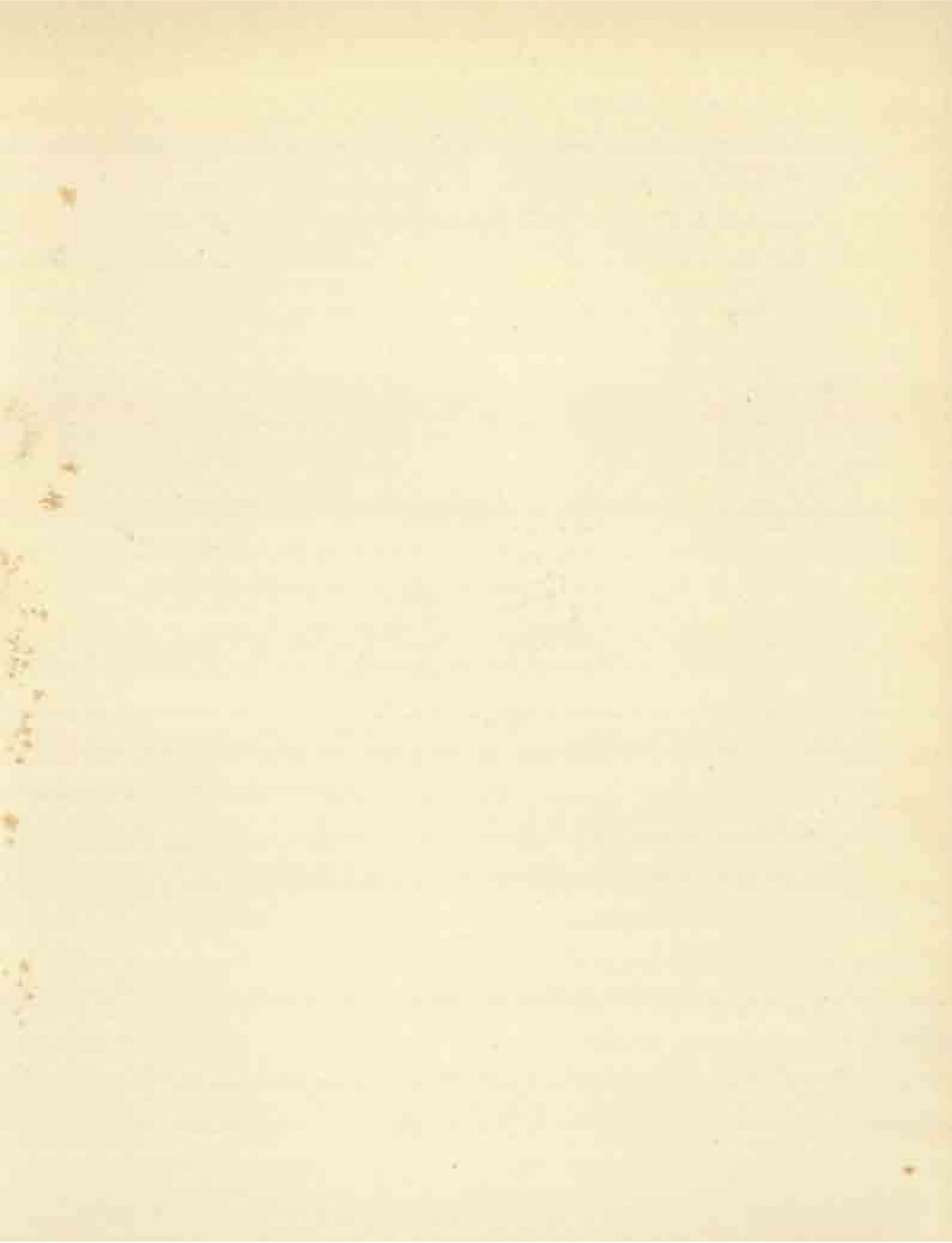
(15)  Dd....., and (16)  ..... Both of these must remain unidentified; between Elephantine and Silsilis I find no record of any fortress.

(17)  ~~an~~ [Hn]y Silsilis. The determinative of the boat makes it almost imperative to restore the name [Hn]y, though the low lacuna preceding suggests the query whether [an] ought here to be read. However, the old form of the Egyptian name for Silsilis is *Hny*, not *Hnyt*, cf.  Pap. Kahun, Pl. 28, 1, 2, where the *t* under  belongs to this sign, and not to the entire word—an orthographical peculiarity of the Middle Kingdom. For further examples of the name *Hny* see BRUGSEN, *Dict. Géogr.*, 579; LEPsi, *Dendm.*, Text IV, 85, 89, 90, 91, 99. No fortress is known at Silsilis.

Surveying the list as a whole, we find that eight of the seventeen fortresses were localized in the region of the Second Cataract, from Semueh to Wady Halfa; and that of these eight at least three are definitely connected with King Senusret III of the Twelfth Dynasty. Probably all seven of those above Halfa are attributable to that Pharaoh, and if so, his subsequent worship throughout Lower Nubia will be fully explained. We now know that vast fortresses existed still further south at a much earlier date: this is the unexpected fact that Professor REISNER's excavations at Kerma have revealed to us. But that fact does not reduce the importance of the step taken by Senusret III, whose definite aim, no doubt, was to weld Egypt and Lower Nubia together once and for all by erecting an insuperable barrier in the Bahn el-Hagar. Unhappily, his policy was frustrated by dynastic upheavals, and at the beginning of the Eighteenth Dynasty Lower Nubia had to be conquered anew.

Of the remaining fortresses I shall say nothing. The history of Nubia has still to be written, and it is a subject as difficult as it is interesting. I am not without hope that a future number of the *Journal* may contain some account of this subject from the pen of a scholar far more familiar with its problems and far more competent to deal with them than myself.

<sup>1</sup> Nos. 852—Exhibit no. 169, see *Hieroglyphic Texts from Egyptian Stelae, etc.*, part iv, Pl. 10.





2



1



3



1, seen from side



4



Impression of 4



5



6

## A TOURIST'S COLLECTION OF FIFTY YEARS AGO

By F. Lt. GRIFFITH, M.A., F.S.A.

In the course of tours in 1862 and 1863, partly in the company of the well-known ornithologist Dr TRISTRAM, the late Mr J. H. COCHRANE made a small collection of antiquities in Egypt and the Mediterranean region, many of which have descended to his daughter Miss E. M. COCHRANE. Several of the objects from Egypt are of interest, and Miss COCHRANE has kindly given me permission to publish them in the *Journal*.

Pl. XXXIII, Fig. 1, 1a. Blade of adze or hoe of brownish flint polished all over; thin, butt rounded, edge almost straight, under surface flat with slight bevel at the sides and edge. On the under side a few irregularities have not been polished out, and there is a chip at each corner and near the middle of the edge due to later accidents. L. 14·9 cm. W. 5·9 cm.

Labelled "El Kab (Eileithyias) U.E. January 29, 1863."

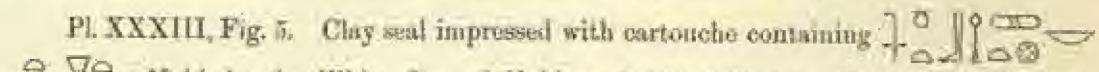
The true adze-form of implement is by no means common. This large type, of which the known specimens range from 17 cm. down to about 15 cm., is quite distinct from the smaller types of half the length or less. DE MORGAN first called it an axe, then a hoe for breaking the alluvial soil; QUIBELL retains the latter name, but CURRELLY doubts it owing to the fragility of the implement and the common use of wooden hoes. None have been found associated with burials and the specimens recorded (three or four in all) appear to be from the surface in Upper Egypt; two of them now in Cairo were found by PETRIE at Dendera and Sheikh 'Ali respectively. See DE MORGAN, *Recherches sur les origines de l'Egypte*, 1896, p. 96, 1897, p. 96 (*sic!*); QUIBELL, *Archaic Objects* (Cairo Catalogue), p. 251; CURRELLY, *Stone Implements* (*ib.*), nos. 64543, 64583-4. None of these examples have any polish except from wear, but one is very well shaped. The specimen here figured seems, therefore, to be unique. If it was a hoe-blade it must have been for ceremonial use, perhaps at a corn festival, the cutting of a foundation-trench or turning the first sod in new canalisation.

Pl. XXXIII, Fig. 2. Turned ivory object, perhaps broken from a piece of furniture; it consists of a rather slender rod with two broad discoidal knobs, all in one piece; the rod is broken at one end, a knob forms the other end with its outer surface concave. L. 5 cm. D. 4·2 cm. Labelled "Luxor, 1862."

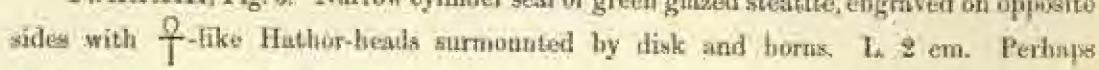
Pl. XXXIII, Fig. 3. Small alabaster vase, thin and well made, a chip out of the rim. H. 6·5 cm. Labelled "Thebes, 1863."

Pl. XXXIII, Fig. 4. Cylinder seal of dark steatite engraved with a series of hieroglyphs including seated figure, emblem of the Saite nome, etc. L. 1·6 cm. Age of First Dynasty or slightly earlier.

See *Ancient Egypt*, 1914, 61, 1915, 78, where Professor PETRIE has gathered together the designs on such seals and attempted an interpretation of them.

Pl. XXXIII, Fig. 5. Clay seal impressed with cartouche containing  "Nekhebt the White One of Nekhen, Lady of Heaven, Mistress of the Two Lands"; the cartouche is surmounted by the sun-disk between two ostrich plumes.

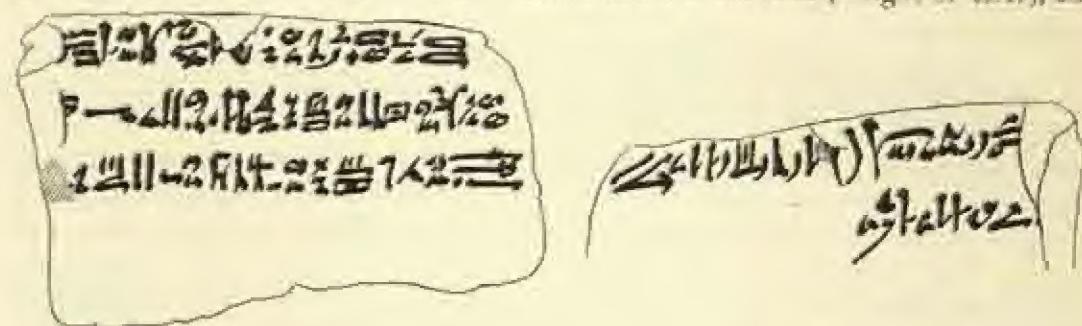
This was once attached, by two strings passed through its ends, to a papyrus, the fibrous surface of which has left a brilliant impression on the back. Evidently the papyrus was destroyed by a fire which has burnt the seal hard; it was probably some important document of the temple of the goddess Nekhebt at El Kab.

Pl. XXXIII, Fig. 6. Narrow cylinder seal of green glazed steatite, engraved on opposite sides with -like Hathor-heads surmounted by disk and horns. L. 2 cm. Perhaps of the end of the Middle Kingdom.

Clay cone of Mermosi, viceroy of Cush under Amenhotep III, type DARESSY, *Recueil de cones funéraires*, no. 113.

A gummed label gives the provenance as "near Heliopolis, Cairo, 1863," but it must have originally come from Thebes, where the cones are well known, though the tomb of Mermosi has not yet been identified. Cf. PETRIE, *Season in Egypt*, Pl. XXII, no. 29.

I am indebted to Dr A. H. GARDINER for the following account of a hieratic ostracon in the same collection:—"Fragment of limestone<sup>1</sup>, inscribed in a bold and characteristic Ramesside hieratic hand. Broken to left of the *recto* (= right of verso), but



Recto.

Verso.

otherwise intact; the extent of the loss is difficult to determine. The photograph, from which the accompanying hand-copies have been made, shows clear traces of an earlier

<sup>1</sup> Marked by the modern owner in ink: "Demotic writing. Thebes. Jan'y. 24th. 1863."

text that has been erased; this was in a very similar hand, and appears to have been a letter. The later text reads as follows:

*Recto.*

- (1)
- (2)
- (3)

*Verso.*

- (1)
- (2)

'Account of everything belonging to me:—[1] laver of bronze.....; 7 neck-ornaments (?) with two *hilt*;...15 *sh'y*; bits (?) of ivory, 2 pieces..... the work that was in it (?), and I did not tell [it (?) to] my father.'

This inventory of possessions made by a woman doubtless had some legal or semi-legal intention. It is of interest as containing several rare or unknown words. *Hhwty* is familiar as 'neck,' but not as 'necklace' or 'neck-ornament'; it seems here to form a single expression with the next word *shb*. There again we are in difficulties; '*shb* of carnelian' appear to be mentioned *Pap. Turin*, 39, 14, and there are several words that might appear to be cognate, *viz.* *wisbyt* 'beads' and *shb*, *shb*, *shy* supposed (*AZ*, 48, 143) to mean 'clasps.' If *hhwy shb* were to mean 'bead-necklaces' the '2 *htyt*' that they possessed might mean 'two rows' of beads. *Sh'y* seems connected with a verbal stem associated with goldsmiths' work, see BAUGSCU, *Dict.* 1103.

*Ps* for a 'piece' of ivory does not seem to occur elsewhere, but cf. with unknown signification, *Pap. Turin*, 39, 17. What 'it' in l. 1 of the *verso* refers to, I am unable to guess, as well as the reason why the lady did not tell her father about it. Between l. 1 and l. 2 there need be but little lost, but the vague pronoun in l. 1 seems to require an antecedent in the destroyed beginning of the line."

Pl. XXXIV, Fig. 7. Ushabti with back pilaster, of very fine and hard ware with rich green glaze, finely moulded, the rope and basket probably finished by hand, the usual inscription round the body in nine lines of large and well-formed hieroglyphs for  "the Osiris, director of music of Pharaoh, Osorkon, whose good name is Neferebrê-si-Neit, begotten of Ahmosi, deceased";  "the Osiris Neferebrê-si-Neit, born of Amen-mai-yots, deceased." L. 14 cm. Labelled "Tombs at Ghizeh, Cairo, Jany 62."

This has been an exceptionally fine specimen of the period, and it is a great pity that it is so much mutilated. Osorkon, characteristic of the Bubastite dynasties, is a rare name in the Saite period; it is here spelt in alphabetic instead of syllabic characters in accordance with the severe archaizing taste of the time. The man appears to have been more generally known by his "good name" compounded with the prenomen of Psammetichus II (593-588 B.C.), in whose reign or shortly afterwards the ushabti may be dated.

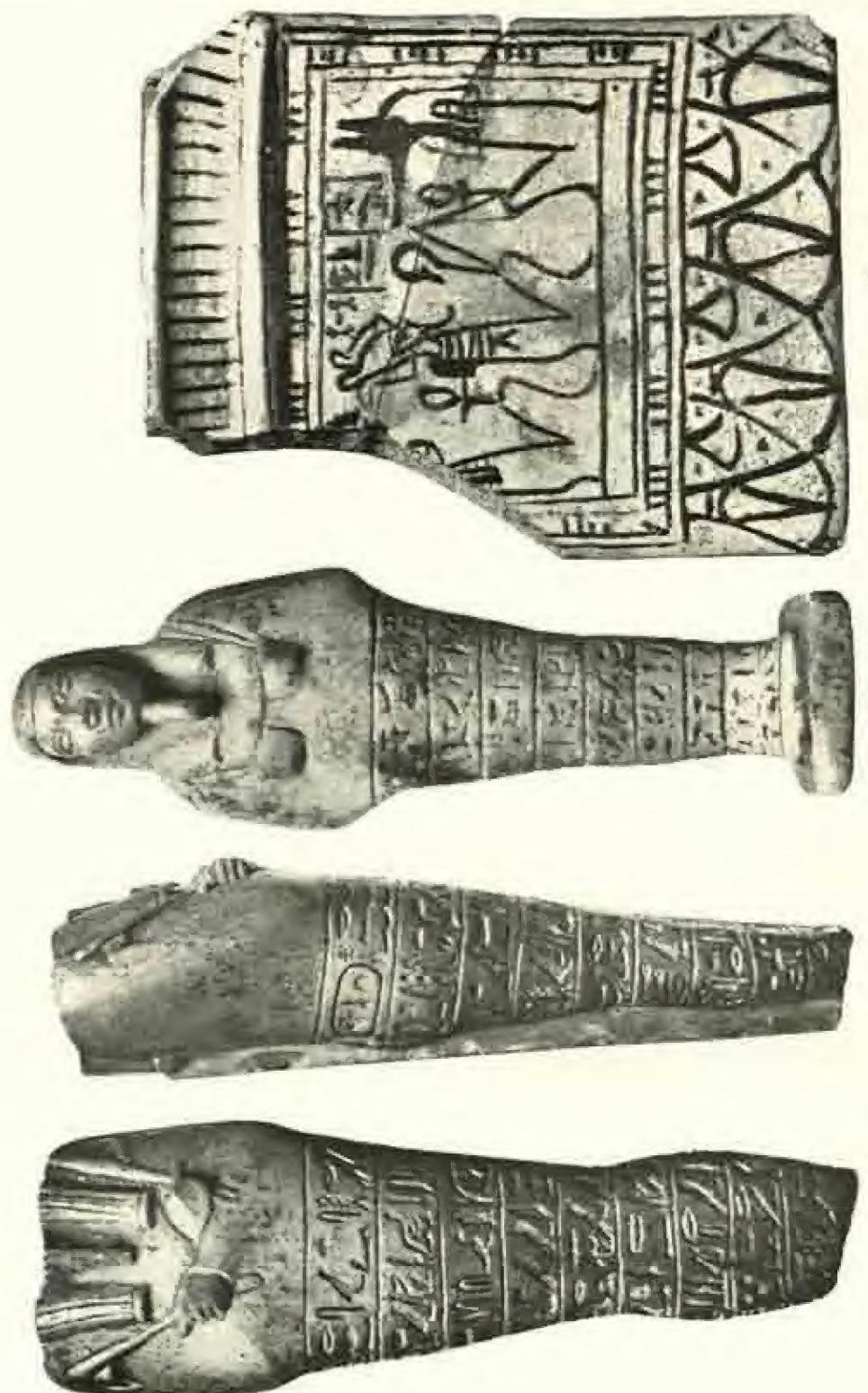
The rare title "director of music of Pharaoh" shows that Neferebrê-si-Neit was attached to the court at Memphis or Sais, and his burial, if not at Ghizeh itself, was doubtless in the region from which antiquities used to gravitate to the Pyramids. I have not been able to trace other records of this person.

Pl. XXXIV, Fig. 8. Ushabti with square base and back pilaster, pale turquoise glaze, inscribed round body and down pilaster with small hieroglyphs summarily incised; the usual spell for  or  "the Osiris, the chief steward of the Adoratrix of the God, Pateneit, deceased, born of Tatubaste." H. 13 cm.

This Pateneit, son of Psammetichus and Tatubaste, was chief steward of the princess Ankhmasneferbrê, daughter of Psammetichus II, who survived to witness the ruin of Egypt in the Persian conquest. Pateneit died some time before that event and was succeeded in his office by his son Sheshonq. His tomb was one of the large ones in the Assisif, no. 197 in GARDINER and WEIGALL's *Topographical Catalogue of the Private Tombs of Thebes*, cf. CHAMPOLLION, *Notices*, 1 552; a funerary cone is published in DARESSY, *Recueil de Cones funéraires*, no. 159. Nitocris, daughter of Psammetichus I, had been made Adoratrix of the God, i.e. succeeded to the power of the High Priests of Thebes, and in turn adopted Ankhmasneferbrê as her successor. But probably Nitocris was long lived, and it is not until the reign of Amasis II that we find monuments of her adopted daughter; it seems, therefore, so far as the published evidence goes, that Pateneit's tomb should be dated in the reign of Amasis, at any rate not so early as the brief reign of her father Psammetichus II, as is suggested in the *Catalogue*.

Another ushabti, labelled "Ghizeh 1862," is of the usual poor quality with stand and back pilaster, yellowish-green pitted glaze; inscription in a horizontal line across chest continued in a vertical line down the legs  "Wennofre born of Aper (?)." The mother's name is indistinct. H. 12 cm.

Pl. XXXIV, Fig. 9. Shrine-shaped pectoral of rich blue glazed ware with moulded projection of cornice, the edges bevelled, back flat. Design in black, representing  Osiris, Lord of Eternity, and  Isis faced by a jackal-headed figure  Duamutef on a rectangular panel with lotus border below. H. 11·7 cm., W. at top 9·5 cm. The pectoral was hung by means of string-holes pierced at each of the upper corners from the top edge to the back. The left-hand top corner destroyed and the right-hand one imperfect.



THE COCHRANE COLLECTION—II

9  
8

7



These shrine-shaped amulets, which vary greatly in the designs, are found on the breasts of mummies; about a dozen in fayence are in the Cairo Museum, with many in other materials. REISNER, *Amulets*, Pls. X—XVIII, PETRIE, *Amulets*, no. 91.

Pl. XXXV, Fig. 10. Fragment, about a quarter, of a flat stand or saucer of hard peacock-green glazed ware with slight concentric ridge before the edge, the under side deeply ridged as in metal pans and bevelled to the edge; the upper side with design in concentric circles incised and filled with deep blue or black, in the centre a rosette, beyond gazelles galloping in opposite directions, in the outermost circle birds with wings extended facing each other and separated by vertical sprigs. Original diameter 5·7 cm. Labelled "Thebes, Upper Egypt, March, '63."

This class of pottery belongs to the Ptolemaic period and is not uncommon at Alexandria, cf. BRECCIA, *Necropoli di Sciatbi*, p. 180 et seqq.

Ostracon, a red potsherd, the inside blackened with resin. H. 8, W. 12 cm. A fragment lost from the lower right-hand corner.

Πεχυτης Αμμανιου ψευφεεινε

χαιρειν

Ειδε πως δυνηθης καταβηναι ινα κατα  
πλευσης μετ εμου μεχρι Κοπτου επ(ε)ι ε  
γραφα τοις [ιε] Αποδλωνιοφ περι των σο  
ματων των απο Κοπτου ινα καταβης με  
τ εμου και λαβωμεν τα σοματα τα εκει  
(μ)ερονοσιν εκειμενα δωδεκα οι νησιωται  
οι απο Συητης απηλθαν α[  
αυταις λεγοντες ει μη συ καταβης Ηρω!  
η διδομεν ημι μη συ θε[λη]ης κατα  
βηναι πεμψον του αδελφον οπως  
καταβησση πριν των νε[κρων?...]  
ινα επι την εφαυριν κατα[πλευσω(μεν?)  
ερρωσο Επιπ  $\delta$

The last line is written perpendicularly down the left side of the lines. Professor GREENFELL, who has kindly completed the copy and interpretation from the original, attributes the writing to the first century B.C.

"Pekhytes son of Ammonius to Psenpsescine sends greetings.

"See how you can come down in order that you may sail down with me to Coptos, for I have written to Apollonius' people about the bodies from Coptos, in order that you may come down with me and we may take away the bodies lying there. There remain twelve lying there (*εκει κειμενα*). The islanders who have come from Syene departed...for them, saying: 'Unless you come down, we shall give them to [Herōjn].' If you are unwilling to come down yourself send your brother that he may come before the bodies [spoil?], in order that we may sail down the next day.

"Farewell. 4th Epiphi."

This rather careless and ill-spelt letter about the transport of bodies for embalming may have been written to Thebes or to Syene. The name of the addressee Psenpsescine means "The son of the physician" and is interesting as showing the old Upper Egyptian form of the Coptic *caem: cnum*.

Pl. XXXV, Fig. 11. Thin bronze pendant in the shape of two dragons' or "camels'" necks (as figured on the ampullas, etc., of St Menas), joined in the middle where there is a transverse loop for suspension; three loops below for further ornaments which are lost. L. 6 cm. Coptic. A precisely similar object, complete with three little bell-like pendants, is published by KAMAL from the Coptic cemetery of Manqabād, *Annales du Service*, XV, p. 183, no. 16, and is there described as an amulet.

Pl. XXXV, Fig. 12. Bronze ornament in the form of a cock, the plume of the tail marked out by serrated open-work. H. 4·5 cm. Coptic.

Pl. XXXV, Fig. 13. Lamp of red pottery, the filling duct well defined with vertical edges and ornamented with a 6-petalled flower round the hole and scattered annulets. Inscribed +τοτ αποτ ανα νοεηθ+. A space for the addition of the handle-loop was left in the mould between the letter τ and the first α in ανα, but the loop was broad and put on to one side of the axis so that α was covered up and the corner of τ hidden. L. 10·5 cm. Labelled "Edfou, Feb. 9, 1862."

This class of lamp is common in Lower Nubia; two examples inscribed μετρικ εσμιε and τοτ αποτ εφημοτ (now in the Pitt-Rivers Museum, Oxford) were found by JOHNSON in his excavations at Antinoe, but apparently none is recorded from Lower Egypt or the Faiyum.

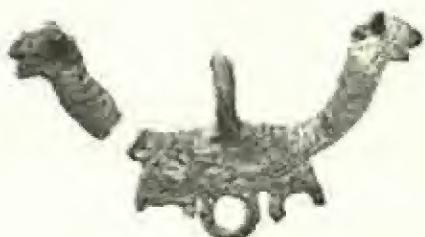
Menas ampulla, on one side the saint standing with outstretched arms (orans), drapery falling from his shoulders, between two dragons or "camels," whose heads are near his feet, a cross on either side of his head, on the other side αποτ ανα εν(λογιο) in three lines within a beaded circle. L. 9·5 cm.

This is one of the flasks purchased by pilgrims, filled with holy water from the shrine of S. Menas in the desert west of Alexandria. See KAUFFMANN, *Ikonographie der Menas-Ampullen*.

Miss COCHRANE has most generously presented the unique adze-head and the ushabti of Osorkon to the Ashmolean Museum, Oxford.



10



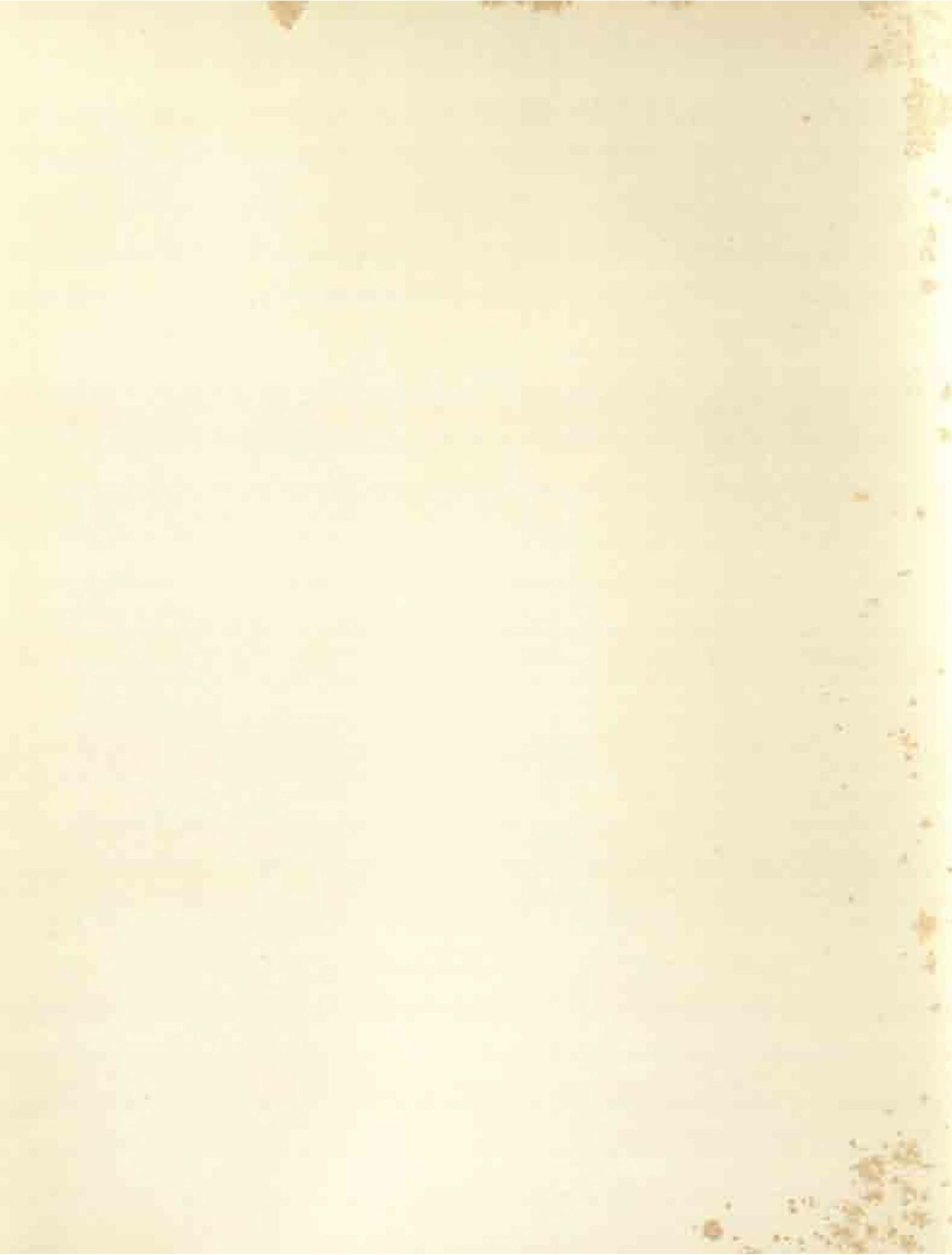
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12



13



## SOME REMARKS ON AN EMBLEM UPON THE HEAD OF AN ANCIENT EGYPTIAN BIRTH-GODDESS

BY AYLWARD M. BLACKMAN, M.A.

Dr SELIGMAN and Miss MURRAY, in an article published a few years ago in *Man*, have shewn that there are good grounds for supposing that the object borne on the  standard represents the Pharaoh's placenta. They were led to this conclusion both by the shape of the object in question in the earliest representations of it, and by the beliefs and practices of the Baganda and other kindred peoples, which are fully described in their article (*Man*, 1911, no. 97) and in ROSCOE, *The Baganda*, pp. 52, 54–5, 109 ff., 235 ff., 303 ff.

Their theory is accepted by SETHE *op. cit.* BORCHARDT, *Grabdenkmal des Königs Sahu-re*, II, p. 77, but is somewhat sharply attacked by VON BISSING in his paper *Die Reliefs vom Sonnenheiligtum des Rathures* (*Sitzs. d. kön. Bayr. Akad. d. Wiss.*, Jhg. 1914, 9. Abh.), pp. 9, 10.

Among the Baganda the afterbirth was regarded as a second child, which, being born dead, became a ghost immediately it left the womb. A ghost, this people believed, must have a material object to which it could attach itself. The ghost of the dead king attached itself to his jawbone, which, sometime after the burial of the corpse, was separated from the skull and placed in a special building or temple (*The Baganda*, p. 235 ff.). The ghost of the placenta, which is furnished with no such convenience, had to content itself with the stump of the umbilical cord when it dropped from the real child. It was this, not the placenta (which was almost immediately buried), that figured so conspicuously in certain ceremonies connected with the living and dead kings among the Baganda. Mr ROSCOE tells me, however, that, although the stump of the king's umbilical cord is substituted for his placenta, the Baganda always speak of the relic as though it were the actual placenta, which indeed he took it to be till a careful examination of the object revealed the true facts of the case. Naturally the stump of the cord is much more easily preserved than the fleshy placenta, which, even if smoke-dried, would soon crumble into dust, leaving its ghost without a material object to which it could attach itself\*.

\* This must not be confused with a very similar emblem which occurs in a not uncommon Old Kingdom title and is to be read *de'* (SETHE, *Pyramidentexte*, 1155a; VON BISSING, *Reliefs vom Sonnenheiligtum des Rathures*, p. 10).

\* This disposes of BISSING's contention, *op. cit.*, p. 10. The Baganda considered the stump of the umbilical cord to be the best substitute for the quickly perishing placenta, and it was a very reasonable

In Ancient Egypt it is possible,—judging from the realistic rendering on the Hierakonpolite slate and mace-head,—that in the earlier periods of Egyptian history it was the placenta itself, preserved in a dried condition, which was carried in front of the Pharaoh on the occasion of certain performances closely connected with the kingship. But the conventionalized form on the later monuments suggests that a model was substituted,—anyhow by the time of the New Kingdom. This is thoroughly in keeping with Egyptian ideas, in accordance with which in the mortuary rites a statue served as the receptacle of the soul instead of the decaying or decayed body. A representation in the tomb of Ramesses IV suggests that the model was sometimes made of gilded wood (MURRAY-SEIGMAN, *op. cit.*, p. 167), and it would appear that two wooden models of his placentas were found in the tomb of Harmhab (DAVIS, *Tomb of Harmhab*, p. 105; MORET, *Mystères Egyptiens*, p. 80, n. 2).

At this juncture I think it will be as well to reproduce a detailed account of the beliefs and practices of the Baganda with regard to the stump of the umbilical cord, most kindly furnished to me by Mr ROSCOE. This puts very concisely, and at the same time, in some respects, amplifies, both his own statements in *The Baganda* and those of Dr SELIGMAN and Miss MURRAY (*op. cit.*, pp. 165—171).

"The navel cord played an important part in the cult of dead kings in Uganda. At birth the placenta was supposed to be a second child with its own spirit and was called the twin (*Malongo*) of the child. The navel cord linked the living and the dead child; as, however, there was no jawbone with the placenta, and it was essential to have some part to which the ghost of the dead twin could attach itself, the stump of cord was retained when it fell from the child. The mother of a prince zealously guarded this, and when her son was elected king she handed it over to the authorities, who wrapped it in bark cloth and decorated it and passed it on to the important chief *Kimbugwe*, who ranked next to the Prime Minister of the land. During the king's life this chief carried the twin (i.e. the cord) at each new moon and presented it to the king, who held it for a few minutes and handed it back to the chief to return it to the temple near by<sup>1</sup>. The loop was used for holding and carrying it.

"When the king died his jawbone was removed and his ghost attached itself to the bone, which, along with the umbilical cord, was placed in a temple specially built for its reception (*The Baganda*, pp. 109—113). These two together formed the complete deity. If either was missing, the deity was imperfect and there could be no oracles. Hence the care taken of these objects was great."

Let us now turn to the two photographs which Mr ROSCOE has most kindly given me permission to make use of and which are reproduced on Pl. XXXVI. Of these Fig. 1 is a photograph of the objects which together form the war god *Kibuka*, and which are now in the Ethnographical Museum at Cambridge. Taken from left to right the small objects are:—the jawbone, penis, and testicles; the large object in

substitute, the cord being the connecting link between the placenta and the child. In Egypt, as we shall see below, when a substitute was employed it took the form not (anyhow in most cases) of the stump of the cord, but of a model of the placenta.

<sup>1</sup> "After the twin had been taken to the King, it had to be exposed in the doorway of the temple for the moon to shine upon it, and it was also anointed with butter" (ROSCOE, *op. cit.*, p. 236).



Fig. 1. Relics of the war-god Kibuka.

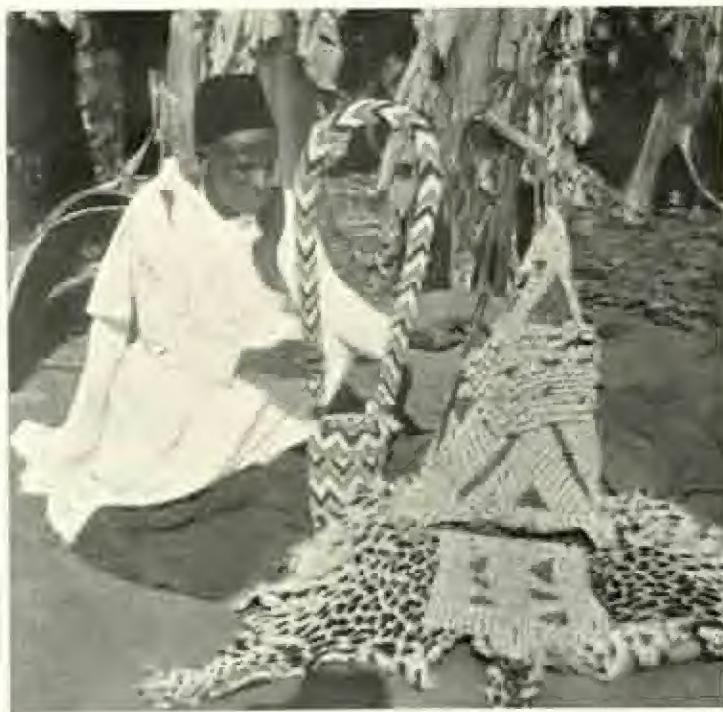


Fig. 2. Stump of umbilical cord and jawbone of a king of the Baganda.

SACRED OBJECTS OF THE BAGANDA.



the centre contains the stump of the umbilical cord. Fig. 49, p. 306, of *The Baganda*, shows the bag which contained Kibuka's relics and the stool upon which it was placed. Stool and all were tied up in a piece of bark-cloth, the whole forming a tall cone like that seen on the right in Fig. 2 (*The Baganda*, pp. 110, 305). The decorated cord-stump was set beside the cone in the temple. The oval case containing the stump has a broad leather strap attached to the back; on the strap are strings of cowry-shells said to be the cash of the ghost (*op. cit.*, p. 110). This, Mr ROSCOE tells me, is the oldest specimen of a decorated umbilical cord-stump that has been preserved to us. The same authority informs me<sup>1</sup> that the Cambridge Ethnographical Museum possesses three sets of decorated cord-stumps. The earliest example is the one already described. The second has a  $\square$ -shaped base and the strap attached to it forms a loop, as in Pl. XXXVI, Fig. 2; the base is a roll of bark-cloth bound tightly together encasing the cord. The third (Pl. XXXVI, Fig. 2, left), which is modern, has a somewhat narrower base. This is encased in leather, and together with the loop is beautifully decorated with beads. The conical object on the right is the jawbone placed in a wooden vessel and then wrapped up in a length of bark-cloth, which is decorated with cowry-shells and beads, like the covering of the umbilical cord-stump (*op. cit.*, p. 110). DR HADDOX and MR ROSCOE agree with me in maintaining that there is no reason for doubting that the reliquary with the  $\square$ -shaped base and the rigid loop may be of as early a pattern as that shewn in Pl. XXXVI, Fig. 1; for the shape of sacred objects such as these is bound to be traditional, and must have been evolved very anciently and become stereotyped<sup>2</sup>. It merely happens by chance that ancient examples of this type have not been preserved, and that the earliest specimen which now exists (in the knowledge of white men<sup>3</sup>) is of the oval shape with non-rigid loop.

In the surviving mass of ancient Egyptian records, written or pictorial, is it ever hinted that any importance was attached to the Pharaoh's umbilical cord and that the stump was preserved, as his placenta seems to have been, for ceremonial purposes? I venture to suggest that perhaps it may be. In NAVILLE, *Deir el-Bahari*, II, Pl. 51, part of the famous series of scenes depicting the conception and birth of queen Hatshepsut, a goddess who kneels behind the recently delivered mother and extends towards her in either hand the symbol of life ( $\text{djed}$ ), wears on her head an object (see Pl. XXXVII, Fig. 1) which is remarkably like the reliquary (see Pl. XXXVI, Fig. 2) that contains the umbilical cord-stump of the king of Uganda. Like that, it consists of a  $\square$ -shaped base surmounted by a tall and apparently rigid loop. The fact that an object, identical in shape with the decorated cord-stump of a Baganda king, should appear on the head of an Egyptian goddess closely associated with birth, may surely be something more

<sup>1</sup> The following statement is an almost word-for-word quotation from his letter to me on this question.

<sup>2</sup> Kibuka, it should be pointed out, came according to tradition from the island of Seso in Lake Victoria Nyanza. He was, therefore, not an inhabitant of Uganda, and perhaps this may account for his decorated cord-stump differing from that of an ordinary Baganda king.

<sup>3</sup> Mr Roscoe tells me, however, that the old men have buried many of these sacred relics, to prevent their falling into the possession of Europeans, and to protect them from destruction at the hands of the rising generation, which, for the most part, has embraced either Christianity or Islam.

than a mere coincidence. Unfortunately the signs forming the name of the goddess are so badly damaged that the reading of them is quite doubtful.

In the parallel scene at Luxor (GAYET, *Temple de Luxor*, Pl. LXV; CHAMPOILLION, *Monuments*, IV, Pl. 340; L. D., III, Pl. 74, c) the female who kneels behind the queen, and who, in this instance, is assisting at her delivery, bears no emblem on her head, nor, unluckily, is her name written beside her<sup>1</sup>; she undoubtedly represents, however, the same goddess, for in both versions the figures tally exactly in number and position, and almost exactly in attitude. This goddess apparently occurs once again in the same series of scenes at both Deir el-Bahri and Luxor (NAVILLE, *op. cit.*, Pl. 53; GAYET, *op. cit.*, Pl. 66; CHAMPOILLION, *op. cit.*, Pl. 341), viz. in the scene representing the solar *bas* and *hmsm-t*<sup>2</sup> dandling those of the newly born Pharaoh. In this instance at Deir el-Bahri the goddess is unlabelled and carries no emblem on her head, but at Luxor her head is surmounted, according to GAYET, *loc. cit.*, by a  $\hat{\wedge}$ -vase (Pl. XXXVII, Fig. 2), and according to CHAMPOILLION, *loc. cit.*, by an object somewhat resembling that vessel (Fig. 1 in text). GAYET's drawings often look merely like tracings of CHAMPOILLION's plates; hence the  $\hat{\wedge}$ -vase may be an "improvement" upon CHAMPOILLION's drawing, which is itself more than possibly an inaccurate rendering<sup>3</sup> of the object figured in the relief. The  $\hat{\wedge}$ -shaped vessel, therefore, in Fig. 1 may be a bungled attempt of CHAMPOILLION's copyist to render an object similar to that at Deir el-Bahri<sup>4</sup>, or it might even be a mistake of the ancient sculptor himself. Unfortunately LEPSIUS' excerpts from the Luxor reliefs (L. D., III, Pls. 74-5) do not include this episode, and I know of no publications of the scene other than those already referred to, nor, I regret to say, have I been able to secure a photograph, which would have settled the question finally. I can find no other representation of this object in temple scenes or elsewhere.

Now for the written records. A lengthy search has resulted in the discovery of only a few references to the umbilical cord and navel, and they are as follows:

<sup>1</sup> NAVILLE, *op. cit.*, p. 16, speaks of her as "an unknown goddess," and neither he, nor BREASTON, *Records*, II, §§ 206, 207, has attempted to read the name, which unfortunately does not appear in SERNE's carefully revised version of some of the explanatory inscriptions belonging to this portion of the relief (*Urkunden*, IV, p. 226-7); SERNE does not allude to it in his recently published translation of these texts (*Urkunden der 18 Dynastie, deutsche Übersetzung*, p. 105-6).

<sup>2</sup> The four goddesses who here, as at Deir el-Bahri, stand behind her, are likewise unlabelled; at Deir el-Bahri their names (from right to left) are Nephthys, Isis,  $\text{---}$ ,  $\text{---}$ ,  $\text{---}$ ,  $\text{Bt}$ .

<sup>3</sup> One would have expected fourteen of each, not, as there are, only six. For the fourteen *bas* and *hmsm-t* of the sun-god see MONTU, *Mystères Egyptiens*, p. 210, von BISSING, *Vorstud einer neuen Erklärung des Kultus des alten Ägypten*, p. 11, A. H. GARNSSEN, *P.S.B.A.*, XXVII, p. 238 ff.

<sup>4</sup> According to LEPSIUS (L. D., Text, III, p. 85) the figure of this goddess has been erased (*ausgeradelt*). This probably accounts for CHAMPOILLION's apparently bungled drawing of the emblem on her head.

<sup>1</sup> The body of the  $\hat{\wedge}$ -shaped vessel obviously represents the loop.



Fig. 1.



Fig. 1. From NAVILLE, *Dyr d'Abydos*, Vol. II, Pl. 51.

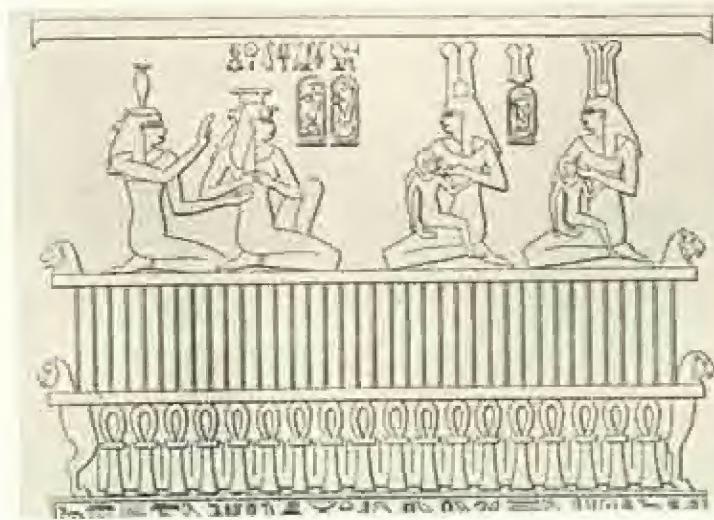


Fig. 2. From GAYET, *Temple de Lycos*, Pl. 66.



EMBLEM UPON THE HEAD OF AN EGYPTIAN BIRTH-GODDESS 263

(1) It is said of the goddesses who, acting as midwives, delivered Ruddidet of her divinely begotten children, that  "They washed him (the first-born of the triplets), cut his umbilical cord<sup>1</sup> (  *hp*), and placed him upon the brick mastaba." (ERMAN, *Papyrus Westcar*, x, 11/2.)

(2)  N.N. "My impurity is put away, my evil is driven off. What does that mean? It means that the umbilical cord of so and so has been cut" (NAVILLE, *Totenbuch*, Ch. xvii, l. 19; GRAPOW, *Urkunden*, v, p. 22.)

(3)  "The gods come to me bowing down. I do for myself what I please. My form is the sky, my mummy (*s'h*)<sup>2</sup> the Nile. Look at me, ye gods and spirits who are in heaven, who are on the desert plateau! I have [...] led my navel (-cord?), I have made my *ibst*, and I appear as the Nile." (LACAU, *Textes Religieux*, i, p. 43, xix, ll. 6—9.)

(4)  "Thy belly is the sky at peace, thy navel is the Tei [...]."<sup>3</sup> (NAVILLE, *Totenbuch*, Ch. clxxii, l. 25.)

(5)  "O little finger of Unas, salute (*wrd*) that in which<sup>4</sup> is the umbilical cord of Osiris." (SETHE, *Pyramidentexte*, 118 c.)

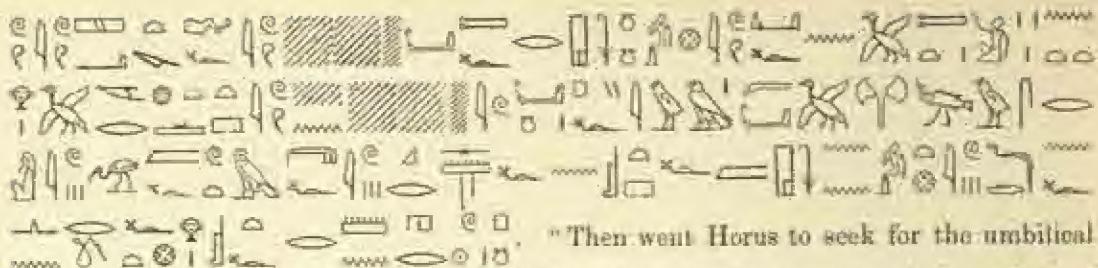
(6) 

<sup>1</sup> Copied *gAnte*; see A.Z., 29, p. 36.

<sup>2</sup> Or is it "my dignity"?

<sup>3</sup> *Wty=...* is evidently a past-partic. qualifying Tei and thus corresponding to *hp-tg* after *pt*.

<sup>4</sup> See ERMAN, A.Z., 52, p. 107/8.



"Then went Horus to seek for the umbilical cord of Osiris. He was told that it had been found in the presence of the scribe<sup>2</sup> of the Nilometer<sup>(?)</sup> in Oxyrhynchus. So Horus set out for Oxyrhynchus and found it in the possession of Seth. Then Seth assumed the form of a hippopotamus when he saw Horus yet afar off; while Horus assumed the form of a youth of great strength; so they fought. After a while Horus overthrew him cutting off his foreleg, and he [despatched<sup>(?)</sup>] it to Herakleopolis Magna (*Na-ny-swt*), and gave it to the scribe who is over the Nilometer<sup>(?)</sup>....Then Horus took the umbilical cord of Osiris which was found in his presence, and it was buried<sup>3</sup> in its place in Herakleopolis. And where it lies is called Neref unto this day<sup>4</sup>." (NAVILLE, *Mythe d'Horus*, Pl. 24, t. 196 ff.; BRUGSCH, *Wörterb.*, Suppl., p. 626.)

All that passage 1 does for us is to establish securely the meaning of *hp*? As only the performances at the actual birth are here described, naturally enough nothing is said as to what was done with the dried-up stump of the umbilical cord when it fell off. We might, however, have expected some mention of the placenta.

2. Here the umbilical cord is spoken of as something objectionable that it is desirable to get rid of (see GRAPOW, *Urk.* v, German Translation, p. 10, footnote 1).

3. This passage, since the meaning of the verb governing *hp*? is doubtful, does not further our quest, and no more does passage 4.

5. Can *nw imy sp wsir*, "that in which is the umbilical cord of Osiris," be

<sup>1</sup> See BRUGSCH, *Wörterb.*, p. 1576-7. Despite the plural determin. the word is probably singular in view of *p*? preceding the same plural form below. There seems nothing to support BRUGSCH's rendering "Leute" ( *Wörterb.*, Suppl., p. 626).

<sup>2</sup> Mr. GRIFFITH suggests that *mht*, which elsewhere is written or and means "time-measurer," "clock," here means "Nilometer." Though I can find no other instance of *mht* occurring in this sense, the rendering well suits the context—the fight clearly took place in or near the water—and the determinative .

<sup>3</sup> Or in view, perhaps, of the determ. , "wrapped up." Probably the words *bs* (its Copt. name) "bury" and *kt* (Is Arab. ) "bind" are close-connected, if not ultimately identical; see EBERS, *Semito-Egyptian medical-chants*, § 1 (A.Z., 40, pp. 87-8).

<sup>4</sup> Lit. "They say to it (the city) Neref upon its (the umbilical cord's) place"; i.e. that quarter of Herakleopolis in which the *hp*? was laid was called Neref. For various writings of this place-name see GRAPOW, *Urk.* v, p. 27; BRUGSCH, *Book of the Dead*, p. 157, 1, 4, p. 322, 1, 14, p. 348, II, 6, 12.

<sup>1</sup> The word *hp*? occurs three times in the Ebers Papyrus, but since the passages in question (WURSTEINER, *Die Papyri Ebers*, 94, 2; 100, 10; 108, 8) do not assist us in our enquiries, I have not thought it worth while to reproduce them.

<sup>2</sup> In modern Lower Nubia the stump of the umbilical cord is put as a wick in a pottery saucer lamp; this wick is lighted and the lamp sent floating down the river.

a reference to an Egyptian reliquary corresponding to that containing the stump of the umbilical cord of the king of Uganda? If the rendering of *imy*<sup>1</sup> is correct, this may really be the case.

But the only approach to anything like satisfactory ancient Egyptian documentary support of our theory, that the emblem on the head of the birth-goddess at Deir el-Bahri is a decorated umbilical cord-stump, is afforded by passage 6. The very fact that Horus went to look for the umbilical cord of his father<sup>2</sup> proves both that it was preserved, and that great importance was attached to it. Why this was so is explained by the belief of the Baganda, set forth by ROSCOE above, that if the umbilical cord-stump was wanting the deity was imperfect; hence the determination of Horus to recover the missing relic. Among the Baganda the placenta, shortly after the birth, was buried at the root of a plantain tree. "When the tree bears fruit," says Mr. ROSCOE, "only the grandmother and mother may eat of the fruit. Should any other persons eat of it, the ghost of the placenta would be taken by them and it would allure the spirit from the living child so that it would die. Great care is taken of the plantain and fruit so as to preserve them for the right person" (see also *The Baganda*, pp. 44-5). It would, therefore, surely, be highly necessary to rescue the umbilical cord of Osiris (the cord being so closely connected physically and ceremonially with the placental) from the hand of Seth, his mortal foe. The name of the city—*Na-nny-swt*, "Child (or like) of the king" (var. *H-t-nn-nny-swt*, "House of the child of the king")—also favours our theory. That *nn* means "child," or is connected with the idea of child, is shewn by the sign  which nearly always appears in the writing of the *nn*-part of the compound (SETH, A.Z., 49, p. 16). We have seen that the afterbirth of the king of Uganda, or the umbilical cord-stump which was substituted for it, was regarded as a second child, the king's twin. We now see that the city in which the umbilical cord of Osiris was preserved, was called "Child (?) of the King" or "House-of-the-Child-of-the-King"; the exact spot where the relic was deposited being named *Neref*<sup>3</sup>. A further parallel to the Buganda custom is the statement that the umbilical cord was wrapped up (*kra*), for, as I have pointed out in footnote 3, p. 204, "wrapped up" in

<sup>1</sup> See above, p. 203, footnote 4.

<sup>2</sup> PLUTARCH, *Ds. Isidis et Osiride*, Cap. 18, may be a reference to this episode:  of which   with  replaced by  is a dialectic variant, being falsely connected with *gmw* "be ashamed," "show reverence," and therefore taken by a foreigner to mean "phallus." This portion of PLUTARCH's narrative, however, is more likely to be connected with quite another incident in the Osiris myth, that described in *Pap. d'Orbiney*, VII, 9, where it is stated that the phallus of Bata (=Osiris), after it was cut off and cast into the river (by Bata-Osiris himself in this case), was swallowed by a *nrt* fish (*silurus*).

<sup>3</sup> This form appears to be anyhow as early as the XIIth Dynasty, by which time *kt* is already worn down to *k*, A.Z., 49, p. 16.

<sup>4</sup> The chief constituent of this name seems to be the word *fr* "to bind." *fr* is apparently in the form *sdw-f* preceded by *n*, which, in the earliest versions, is written  not  (GUAROW, *Urk.*, v, pp. 28-7). If in any case *n* is to be regarded as the negative (see EHRMAN, *Grammat.* § 512, LACAD, *Rec. Traj.*, XXXV, p. 220, § 455) "He (or 'it') is not bound" would refer to the condition in which Horus found the umbilical cord of Osiris (i.e. it had not been ceremonially wrapped up, or had been unwrapped by Seth); or to the fact that since this important relic had been recovered,

view of the determin.  is probably a more accurate rendering of *hrs* than "buried." When thus wrapped up it doubtless assumed the form of the hitherto puzzling object at Deir el-Bahri. Finally, as already pointed out, it is possible that in passage 5 mention is made of the receptacle in which the umbilical cord of Osiris was kept.

If the striking resemblance between the objects figured in Pls. XXXVI and XXXVII is something more than a very remarkable coincidence, we must suppose that the goddess who carries the emblem in question upon her head is in some way or other concerned with the Pharaoh's umbilical cord? Perhaps she is its protector?

I am painfully conscious of the weakness of my arguments and especially of the dubious nature of the documentary evidence. Indeed the only written records that can in any way be said to support my supposition are a very ambiguous sentence in the Pyramid Texts, and a portion of a very late version of the Seth-Horus legend, the interpretation of which is made difficult by rare and obscure words and a lacuna at an important point.

It is a far cry from Uganda to Egypt. Yet it must be remembered that the Baganda royal family is Hamitic in origin, and consequently akin to the Proto-Egyptians. The beliefs and practices of the Baganda, described above, concern only the jawbone, afterbirth, and umbilical cord-stump of members of the ruling, and therefore Hamitic, caste. The royal dead alone are deified, the ghosts of ordinary folk, i.e. the indigenous population, as Mr. Roscoe informs me, are supposed to be reincarnated. Thus this idea about the placenta and umbilical cord may form part of the common stock of religious conceptions of the North-East African, or Hamitic, peoples, inherited from the remote past.

It must not be forgotten that from time immemorial the Egyptians had been in contact with Punt, Punt being the modern Somaliland, or perhaps a region even further south than that. It is worth pointing out, too, that, not very long before the birth scene was carved on the walls of her temple at Deir el-Bahri, Hatshepsut's expedition to Punt had safely returned, bringing with it not only the produce of that distant country, but also some of its inhabitants (BREASTED, *Records*, II, 266).

I shall feel that the object of this article has been fully attained, if it induces scholars to keep their eyes open for further texts or representations that will demonstrate the truth or falsity of what, after all, only purports to be a very tentative suggestion.

Osiris was "not bound," i.e. was no longer a thrall of his enemy, as he was while it remained in his hands. But more probably the late writing  or  is an attempt of the priestly scribes to explain an old word, the original meaning of which had become quite obscure.

## THE ORGANISATION OF THE ALEXANDRIAN MINT IN THE REIGN OF DIOCLETIAN

BY J. GRAFTON MILNE, M.A.

1. The question has been raised more than once whether the coins issued under the Roman emperors for the currency of the province of Egypt were struck only at Alexandria or in part at other mints. The supposition that there was more than one place of mintage has been based mainly on slight variations in types and fineness; but it may be argued that these variations might occur in different shops of the same mint just as much as in different mints. I propose therefore to enquire what evidence can be found as to the existence of distinct shops in the mint of Alexandria during the period when the Roman-Egyptian coinage was on a special basis—i.e. down to the "Monetary Reform" of Diocletian—and in the first instance to investigate for this purpose the issues of the reign of Diocletian as the nearest in point of time to those which can be more certainly classified under shops.

2. It should be premised that the statistics used in the following paragraphs for demonstrating the size of a particular issue of coins have been drawn so far as possible from a combination of the results of hoards covering the same period. The general principles to be adopted in using the evidence of hoards are explained in my paper on "The Roman Coinage of Alexandria" in *Historical Studies*, p. 30; but it may be as well to emphasize the fact, which is not always recognised, that the activity of the Alexandrian mint in a given year is not to be measured by the number of distinct types used, but rather the contrary: as a rule, the larger the number of coins issued in any year, the smaller is the number of types; consequently, it is most misleading to assume that the issue of a year was large because some museum or collection possesses numerous varieties of types of that year.

3. As a preliminary step, it is necessary to consider a chronological point—the relation of the various coinage-years used during the period under consideration; when Alexandrian coins were struck in the names of Diocletian, Maximian, Constantius, and Galerius. In all earlier instances during the Roman rule in Egypt (except the anomalous case of Aurelian and Vaballathus) where a second Augustus or a Caesar had been proclaimed, the dates on Alexandrian coins struck in his name were those of the years of the senior Augustus. But the issues of Diocletian and Maximian were dated by their individual years as Augusti; consequently, as Maximian was associated in the full imperial power during the second Alexandrian year of Diocletian—285/6—his coinage-year 1 is 2 of Diocletian. Thus, when Constantius and Galerius

were proclaimed Caesars,—which was, according to the chronology usually accepted, on March 1st, 292,—the mint probably found a difficulty in following precedent with regard to their years: they might have dated the coins of Constantius by the years of Diocletian, and those of Galerius by the years of Maximian, each Caesar taking the dates of the Augustus with whom he was specially associated; but, as there were already two sets of years running, the officials seem to have thought it simpler to give the Caesars their own dates, and the issues of Constantius and Galerius are accordingly dated years 1 to 4. It has usually been assumed that these years were fixed on the regular Alexandrian principle, so that year 1 of Constantius would be March 1st to August 28th, 292, coinciding with the latter part of year 8 of Diocletian = 7 of Maximian. But there are several reasons for thinking that the first year of the Caesars, for coinage-dating, was year 9 = 8, not year 8 = 7, of Diocletian and Maximian.

4. (a) The palm was introduced as a symbol on the reverse of coins of Diocletian in his year 10. This was in honour of his *decennalia*, in accordance with precedent (see § 25); and precedent also allowed the palm to be simultaneously placed on the reverses of coins of subordinate members of the imperial house. Now the palm is found on coins of Constantius of year 2, which is therefore presumably year 10 of Diocletian, not year 9; as it is most improbable that the symbol would have been introduced on the coins of a Caesar a year in advance of the proper time.

(b) The palm is similarly first used as a symbol on coins of Maximian in his year 10, and occurs on coins of Galerius of his year 3.

(c) Exergual letters, indicating shops of the mint (see § 9), are found on coins of years 8, 9, and 10 of Diocletian, 7, 8, and 9 of Maximian, and 1 and 2 of Constantius and Galerius. It seems unlikely that, if year 1 of the Caesars had corresponded with year 8 = 7 of the Emperors, the use of shop-numerals would have been dropped in their year 3 when it was continued on the coinage of their seniors.

(d) The star occurs frequently as a symbol on coins of year 4 of Constantius and Galerius; it similarly occurs on those of year 12 of Diocletian and 11 of Maximian, but never on those of year 11 = 10.

(e) If year 1 of the Caesars was year 8 = 7 of the Emperors, there would be no coins known of the last year—year 5—of the Caesars before the monetary reform. There is no obvious reason why their issues should have ceased while those of the Emperors went on.

(f) The coins of Diocletian of year 12 and of Maximian of year 11 show marked peculiarities of treatment, which are shared by those of the Caesars of year 4 (see § 27).

For these reasons we may suppose that the issue of coins for the Caesars, and the dating of their coin-years, did not begin till year 9 = 8 of the Emperors. This dating is in accordance with the evidence of papyri, in which year 1 of the Caesars is normally equated with year 9 = 8 of the Emperors, and so forth. The tables given below are compiled on the assumption that this equation is the correct one for the purposes of the coinage.

5. After the monetary reform of Diocletian, the evidence as to the organisation of the Alexandrian mint is much clearer than before. The Egyptian currency was

now assimilated to that of the rest of the empire: and the coinage, which was issued from a dozen or more mints in different provinces, regularly bore the name of the place of mintage of each piece, and also a letter or number denoting the particular shop in which it was struck. The only Egyptian city whose name occurs as a place of mintage is Alexandria, where there seems to have been a good deal of variation in the number of shops at work. MAURICE's careful study of the coinage of the time of Constantine the Great shows that the Alexandrian mint had the following shops open during this period:—

305-308	4
308-311	6
311-312	3
312-314	8
314-327	2
327-335	Mint closed
335-337	2
337 onwards	4

6. It does not appear what considerations governed the number of shops open at any particular time. It might be presumed that extra shops were started when the mint had to produce an unusually large issue; but I have no definite evidence that the coins of the periods when there were most shops are markedly commoner than others. Also it is not clear whether the output of different shops was approximately equal at any given time; a large hoard of coins buried about 344 A.D. and consisting almost entirely of the issues of the preceding ten years contained 271, 318, 377, and 233 examples struck after 337 by the four shops of the Alexandrian mint respectively (see *Journ. Intern. d'Arch. Numism.*, xvi, 1), which suggests that there was some, though not necessarily a large, variation in the output.

7. We can now proceed to scrutinize the issues of the twelve years of the reign of Diocletian before the monetary reform, during which the Egyptian mint struck tetradrachms for the provincial currency, and, according to the regular custom of Alexandria, dated the coins of each regnal year. The hoards which I have examined are three, and the following table shows the number of specimens of each year in each hoard, with a percentage expressed as the mean of the percentages of the three taken separately.

Year	Hoard A.	Hoard B.	Hoard C.	Mean percentage.
1	32	211	43	6·3
" 2	70	321	73	11·3
" 3	103	539	105	17·3
" 4	82	510	101	15·5
" 5	71	514	88	14·2
" 6	58	343	81	11·2
" 7	24	365	26	0·7
" 8	40	114	47	6·
" 9	23	58	40	4·
" 10	20	39	35	3·4
" 11	17	27	25	2·6
" 12	14	8	12	1·5

8. It will be seen that the variations between the proportionate numbers for each year in the three hoards are not very great; in fact, the percentages of A and C are for the most part very similar, the chief difference being that A has a preponderance in years 2 and 3 and C in years 9 and 10. The only serious discrepancy, indeed, in the whole table is in the figures of year 7 for B, which give a percentage for this year of 12, as against 43 in A and 38 in C; and fortunately the disturbing factor here can be discovered and explained. It is evident that the original owner of hoard B made a considerable addition to his hoard in year 7, and that the coins he then put away had not been gathered out of circulation, but had come to him almost direct from the mint; this is proved by the facts that, while most of the coins in the hoard show more or less signs of use, the great bulk of those of year 7 are absolutely unworn, and that they are mainly in groups struck from the same dies. For instance, there is one pair of dies represented by 18 examples, another by 17, two others by 12 each; it is most improbable that these groups could have been collected after the coins had gone into general circulation, and the natural explanation of their presence is that the coins were made up in rolls or parcels as soon as they were struck, and reached the hoarder in the same form. Subject therefore to this consideration, it may be taken that the mean percentages show approximately the comparative size of the issues of the twelve years under review.

9. During three years of the twelve, there is evidence as to the arrangement of the shops of the Alexandrian mint derivable from the fact that letters are placed in the exergue of the reverse type, which may certainly be assumed to be shop-numbers. The years in question are 8, 9, and 10 of Diocletian, and four numbers are found—A, B, P, and Δ—but the numbers are not invariably placed on all coins of these years. The statistics of three hoards show the following results:—

Year	A	B	P	Δ	No number
8	7	9	6	14	165
" 9	16	21	30	45	9
" 10	4	2	22	15	51

From these figures it looks as if the practice of giving shop-numbers on the coins began rather late in year 8, after the bulk of the issue of the year had been struck; it was normally followed in year 9, and dropped out in the course of year 10. This point will be discussed further below (see §§ 23–25).

10. The four shops were evidently divided between the emperors. In year 8 coins of Diocletian were struck at shops A and Δ, while those of Maximian (whose 7th year it was) came from shops B and P. In the next year the Caesars Constantius and Galerius came on the scene, and Constantius shared the shops of Diocletian, Galerius being associated in those of Maximian. This division seems to have been almost, if not quite, absolute: a few coins of Maximian and Galerius (e.g. DATTARI 5866, 5933, 5934 of Maximian, 6107, 6109, 6146 of Galerius) have been published as bearing the shop-number A; but even if the letter is correctly read—and in many instances the exergual letters on these coins are so badly cut as to be illegible (see § 24)—these rare exceptions to the general rule are not of great weight. A similar division of shops for the purpose of striking coins for different members of the imperial house

is found at some mints in the latter part of the reign of Constantine the Great; for instance, at Antioch the regular arrangement from 333 to 337 would appear to have been that shops A, B, Γ, and Δ struck for Constantine the Great, Ε and Σ for Constantine Caesar, Ζ for Constantius, Η for Constans, Θ the Roma type, and Ι that of Constantinopolis and for Delmatius. The division was not, however, rigidly followed, especially in the latter part of the period, while even before 335 shop Η is found striking for Constantine Caesar and Constantius as well as for Constans, and Θ exceptionally for Constantine Caesar; and after 337 the arrangement appears to have been abandoned altogether. Alexandria, however, was not one of the mints which adopted the system of dividing its shops at this period.

11. The total number of examples included in the above table is unfortunately rather small; but, so far as they go, they indicate a variation in the outputs of the different shops: in year 9, where there is least complication in the evidence, shops Γ and Δ seem to have been distinctly more active than A and B. There is more balance between the joint issues of the two shops of Diocletian and those of the two of Maximian.

12. In the other years of the reign we do not find on the coins any shop-numbers similar to those of 8–10; but an examination of the types year by year will show that there are some variations in the legends and symbols used which occur in such a manner as to suggest that there was a purpose underlying the variations. The issues fall into two main series, each covering a period of six years; and it will be convenient to group the obverse-types of each series separately.

13. The obverse-types of the first six years of Diocletian (five of Maximian) are:—

<i>Diocletian.</i>	A <sub>1</sub> .	ΑΚΡΟΥΑΔΙΟΚΑΗΤΙΑΝΟCCEB	Bust r., laureate, in front view, wearing cuirass.
	A <sub>2</sub> .	do.	Bust r., laureate, in back view, wearing cuirass and cloak.
	B <sub>1</sub> .	ΑΚΡΟΥΑΔΙΟΚΑΗΤΙΑΝΟCCEB	As A <sub>1</sub> .
	B <sub>2</sub> .	do.	As A <sub>2</sub> .
<i>Maximian.</i>	N.	ΑΚΜΑΟΥΑΖΙΜΙΑΝΟCCEB	Bust r., laureate, in back view, wearing cuirass and cloak.
	O.	ΑΚΜΟΥΑΖΙΜΙΑΝΟCCEB	do.

Thus in the case of each emperor two forms of obverse legend were used during the period, and a further variation was obtained in the types of Diocletian by representing the bust in front or in back view. It should further be noted that there is another apparent mark of differentiation on the reverse of most types of years 2 to 6 in the presence or absence of a star in the field.

14. In year 1 coins of Diocletian only were struck, and only one obverse-type—A<sub>1</sub>—was used: the star does not occur on the reverse. [Coins of this year are sometimes described as having on the obverse a head instead of a bust; but all the specimens that I have examined which might come under this description appear to have been struck from worn dies which originally had the full bust, or to have been so mis-struck that nothing below the neck is discernible.]

15. In the course of year 2 Maximian was associated in the imperial power, and variations begin to occur in the obverse-types. The following table shows the number of coins of different obverse-types from each year from 2 to 6 found in my three hoards:—

		Year 2=1	3=2	4=3	5=4	6=5
<i>Diocletian.</i>	A <sub>1</sub>	245	1		1	
	A <sub>1</sub> with star on rev.		31			
	A <sub>2</sub>	" "		37	185	148
	B <sub>1</sub>	104	198	196	190	146
	B <sub>1</sub>	" "	80			
	B <sub>2</sub>		2			
	B <sub>2</sub>	" "	99	139	1	
	N	47	158	165	139	96
	N	" "	1	34	154	92
	O		2		2	
<i>Maximian.</i>	O	28	175	118	1	
	O	" "				

[In considering the conclusions to be drawn from these figures, it will probably be safe to disregard the cases where only one or two stray examples occur in a particular year. These apparently anomalous specimens can usually be shown on investigation to be really accidental, and due to such causes as mis-strokes or confusion of dies. For instance, four coins of Maximian are included in the table which have obverse-type O and no star on the reverse; but the absence of the star is very likely to have been caused by the use of a faulty reverse-die or an imperfect flan which did not take the impression fully.]

16. Maximian is usually supposed to have been proclaimed as Augustus on April 1st—i.e., after more than half of the second Alexandrian year of Diocletian was passed; there is an instance in a papyrus (*B.G.U.* 1090) where he is mentioned as Augustus on 5 Pharnouthi = March 31st; and, if this dating be correct, he must have been proclaimed some days earlier; but isolated dates in papyri are not very safe ground for chronological studies. As type A<sub>1</sub>, without star, was the combination which had been regularly used in year 1, and furnishes the greater part of the coins of Diocletian of year 2, but does not, except in stray examples, occur after year 2, while the other types of year 2 continue into year 3, it may be assumed that coins of Diocletian were struck from A<sub>1</sub> without star till the elevation of Maximian, when B<sub>1</sub> was introduced. Then, in the latter part of the year, there were four series being issued; for Diocletian, of types B<sub>1</sub> without star and B<sub>1</sub> with star; for Maximian, of N without star and O with star.

17. In year 3=2 there is more variation, at any rate among the types of Diocletian. There appear to have been four in regular use: B<sub>1</sub> without star and A<sub>1</sub>, B<sub>1</sub>, and B<sub>1</sub> with star. It is, however, noticeable that the total number of specimens of the three series with star is very little in excess of that of the one without star—210 against 198; which fact gives some ground for suggesting that the three obverses may have been used successively during the year with star reverses, while B<sub>1</sub> without star went on steadily throughout. If this be accepted, the order in which the three obverses came may have been B<sub>1</sub> (which continued from year 2), A<sub>1</sub> (found only in

this year with star), and B<sub>2</sub> (which goes on to year 4). The coins of Maximian are, as in the previous year, of types N without star and O with star, the total of the specimens of each series numbering about the same.

18. Year 4=3 shows a variation in the obverse-types of both emperors. For Diocletian there are three—B<sub>1</sub> without star, as before, and A<sub>2</sub> and B<sub>2</sub> with star. Here again the specimens of the two series with star are nearly equal to those of the one without; and, as B<sub>2</sub> with star is a combination found in year 2, while A<sub>2</sub> with star is one of year 5, we may suppose that in association with star reverses A<sub>2</sub> was substituted for B<sub>2</sub> in the course of the year, B<sub>1</sub> going on continuously for coins without star. This conclusion is supported by the evidence to be derived from the issues of Maximian; his coins without star are all struck from obverse-type N, as in the preceding year, while those with star are partly from O, as in the preceding, and partly from N, as in the following year; and the total of the specimens of the two series with star is approximately that of the one without. It seems likely that the change from B<sub>1</sub> to A<sub>2</sub> for Diocletian, and from O to N for Maximian, took place at the same time, as the proportion of coins belonging to the former and latter series is about the same in the case of either emperor.

19. The issues of years 5=4 and 6=5 are much simpler: the coins struck for each emperor fall into two classes—those of Diocletian of the combination B<sub>1</sub> without star, and A<sub>2</sub> with star, those of Maximian of N without and with star—throughout the two years.

20. The figures given above distinctly suggest that from the time of the association of Maximian in the empire to the end of year 6=5 the Alexandrian mint was striking coins in four series, with and without star on the reverse for each of the emperors. The totals for each year of each series, disregarding the coins of Diocletian of year 2 with obverse A<sub>1</sub>, as probably struck before the association of Maximian (see § 16), and stray coins, are

	Year 2=1	3=2	4=3	5=4	6=5
Diocletian with star	37	210	176	185	148
" without star	104	198	196	190	146
Maximian with star	28	175	152	154	92
" without star	47	158	165	139	96

Considering that these figures are drawn from a limited number of hoards, the regularity, at any rate for the last four years, as between the issues with and without star for each emperor, is rather striking. The coinage for Diocletian is always rather larger than that for Maximian, which may be explained by the fact that Diocletian was the senior Augustus. But generally, the evidence would fit in well with the assumption that the mint of Alexandria was working at this period with four shops, two for Diocletian and two for Maximian, as it did in years 8 to 10 (see §§ 9, 10); and the shops distinguished their issues, in so far as the image and superscription of the emperor did not serve the purpose, by the presence or absence of a star on the reverse. The variations between forms A and B, and N and O, respectively, of the legend on the obverse, as also between the positions of the bust in the types of Diocletian, would not appear to have any significance for marking the shops.

21. With the issues of year 7 = 6 there is found a change in the obverse legend of each emperor, and the coins of the second six years have the following types, those of Constantius and Galerius coming in from year 9 = 8:—

<i>Dioctetian.</i>	C <sub>1</sub>	ΔΙΟΚΛΗΤΙ ΑΝΟΣΟΕΙ	Head r. laureate.
	C <sub>2</sub>	do.	Bust r. laureate, wearing cuirass.
<i>Maximian.</i>	P <sub>1</sub>	ΜΑΞΙΜΙ ΑΝΟΣΟΕΙ	Head r. laureate.
	P <sub>2</sub>	do.	Bust r. laureate, in back view, wearing cuirass and cloak.
<i>Constantius.</i>	G	ΦΛΑΚΟCTANTIOCK	Bust r. laureate, wearing cuirass and cloak.
	H	ΦΛΑΚΩNTANTIOCK	do.
	I <sub>1</sub>	KONCTAN TIOCK	do.
	I <sub>2</sub>	do.	Bust r. laureate, in back view, wearing cuirass and cloak.
	I <sub>3</sub>	do.	Head r. laureate.
<i>Galerius.</i>	T <sub>1</sub>	ΓΑΛΑΖΙΜΙΑΝΟCK	Bust r. laureate, wearing cuirass and cloak.
	T <sub>2</sub>	do.	Bust r. laureate, wearing cuirass.
	U	ΜΑΞΙΜΙ ΑΝΟCK	Bust r. laureate, wearing cuirass and cloak.

[These are the leading divisions of the obverse-types; there are a good many minor varieties, especially in the coins of the Caesars of the last year. In the cases of C and P the legend is frequently run on without a break: the same occurs with I, which also has the legend broken KONCT ANTIOCK or KONCTA NTIOCK; and the legend of T<sub>1</sub> is sometimes broken ΓΑΛΑΖΙ ΜΙΑΝΟCK. One or two legends are obviously eccentric—for instance, ΦΛΑΚΟCTANTIOCK for G, and ΓΑΛΑΖΙ ΜΙΑΝΟCK for T<sub>1</sub>. But I have not been able to find any evidence that these variations in the arrangement of the legend were due to any reason other than the caprice of the die-engraver; at any rate the statistics from hoards do not suggest that they distinguished the outputs of different shops, and it does not seem necessary to go further into their distribution.]

22. In year 7 = 6, the obverse-types used were C<sub>1</sub> for Dioctetian and P<sub>2</sub> for Maximian. A change from the practice of previous years appears in regard to the use of the star on the reverse: instead of each emperor having some coins struck with star and some without, all the issues of Maximian of this year have the star, while it never occurs on those of Dioctetian. The fact that the total number of examples in the three hoards examined was approximately the same for each emperor—11, 181, and 11 of Dioctetian against 13, 184, and 15 of Maximian—suggests that their coins may represent the output of separate shops; if there were four, as before, the two star-shops now worked for Maximian and the other two for Dioctetian, instead of each emperor having one shop striking coins with and one without a star; but it may be that only two shops were open in this year. The joint statistics given above (§7) for the issues of different years are vitiated in this year by reason of the special addition which appears to have been made to hoard B (see §8); but it will be observed that in hoards A and C, which are probably more normal in their composition at this point, the percentage of coins of year 7 is only about a third of that of year 6 and a half of that of year 8. Evidently the output of the year was considerably less than that of the preceding or following year, and it may well be that two shops were temporarily closed. It might be suggested that a distinction between the issues of

different shops was found in the reverse-types: the number of reverse-types used is rather limited, the coins of Diocletian having only two, Zeus standing and Zeus seated; while those of Maximian, though more varied, fall into two groups—four types of Herakles standing with different attributes, and two of Nike advancing right or left. But the statistics derived from my hoards are not sufficient to show any balance between the groups.

23. Year 8 = 7 began with what would appear to have been the same shop-arrangements: the mint issued coins of Diocletian with obverse-type C, and no star on reverse, and of Maximian with P<sub>1</sub> and star. The reverse-types of Zeus, Herakles, and Nike continue; but a number of fresh reverse-types were introduced, which make any attempt at balancing groups by reverse-types even more difficult than before. But at some time during the year the practice was started of placing a numeral letter in the exergue of the reverse, presumably to indicate the shop (see § 9); probably the change was made somewhat late in the year, as the hoards show 165 specimens without such numerals as against 36 with them. It is noteworthy that the regular use of the star in the field of the reverse disappears with the introduction of the exergual numbers, which is evidence in favour of the star having been a shop-mark; it occurs exceptionally on one or two coins of the next year, but is rare until after the shop-numerals had dropped out again. From the time of this change, it is clear that there were four shops working at the mint of Alexandria—two for Diocletian with Constantius and two for Maximian with Galerius (see § 10); and it may be suggested that the increase in the output as compared with the previous year made it necessary to reopen the two shops which had been temporarily closed (see § 22). At the same time the obverse-types were slightly varied, C<sub>1</sub> now becoming the normal type of Diocletian, while P<sub>1</sub> was introduced for Maximian, though P<sub>2</sub> continued to be used.

24. In year 9 = 8 the use of shop-numbers was the normal practice throughout the year, and generally the mint seems to have followed the same lines as in the previous year. A small proportion of the coins—9 out of 121—do not bear any numeral; but in some cases at any rate this would appear to be merely an omission on the part of the die-engraver. The execution of the dies at this period is very poor, and the letter in the exergue is often practically illegible and reduced to a mere dot or line, from which it is a short step to leaving it out altogether. There is certainly no reason to suppose that these unnumbered coins represent the output of a special shop.

25. In the course of year 10 = 9, however, the shop-numbers ceased to be used, and do not reappear before the end of the issue of tetradrachms. The specimens without a numeral struck in this year are about equal in number to those with one, and the change may have taken place about the middle of the year. Since most of the numbered coins of this year came from shops Γ and Δ (see § 9), and the total output of the mint shows a diminution which continues into the next year (see § 7), it may be suggested that it was found possible to provide the whole supply of coins required for currency from two shops, as may have been the case in year 7 (see § 22), and that shops A and B were accordingly shut down. When this change had been effected, as Γ struck only for Maximian and Galerius and Δ only for Diocletian and Constantius, the use of numerals to distinguish the output of the two shops was no longer necessary and was dropped. On the reverses of several types of Diocletian,

and one or two of Constantius, there is an adjunct symbol in the form of a palm; this was doubtless introduced in honour of the *decennalia* of Diocletian, as it had been on coins of the tenth and later years of Severus Alexander and Gallienus. But there is no reason for regarding the palm as the mark of a special shop; it occurs on coins with shop-numerals as well as on those without.

26. During year 11 = 10 the coins of Emperors and Caesars alike have nothing which could be regarded as a shop-mark. Numerals are never found; a few types of Diocletian have the palm on the reverse, and this also occurs on some of Maximian and Galerius, presumably to mark the *decennalia* of Maximian. But the general conditions do not suggest that there was any change from the arrangements which had prevailed at the mint during the latter part of the preceding year.

27. In year 12 = 11 there is more variation in several respects. On the coins of Diocletian and Constantius the palm occurs as an adjunct to the reverse-type more frequently than in the previous year, while a good many types have a star on the reverse, which is not found on any coins of year 11; and similarly the palm and the star are both used on reverses of Maximian and Galerius. The total output of the year was small, and the statistics at my disposal are not sufficient to form a basis for deducing any distinction of issue from these symbols; but the palm at any rate is no more likely to have been a shop-mark in this year than in previous ones, and coins with star are so much rarer than those without—the hoards show 5 with against 29 without—that it may perhaps be concluded that the use of the symbol was capricious. There is the more reason for this conclusion, since the issues of this year show much more instability in the obverse-types than those of any previous year of the reign of Diocletian: in particular, the treatment of the heads or busts is greatly varied; whereas the portraiture had formerly followed fairly regular principles, in year 12 every die-cutter seems to have been at liberty to represent an Emperor or a Caesar according to his own preference. Similarly there is much difference in the arrangement of the legends (see § 21). In the absence of further evidence, it may perhaps be assumed that the small output of this year came from one shop only; and, as there was consequently no need to treat symbols as the distinctive marks of any shops, they were introduced wherever the die-cutters pleased.

28. The conclusions reached in the foregoing paragraphs as to the arrangement of shops in the Alexandrian mint during the first twelve years of the reign of Diocletian can be summarily stated as follows:—

Years 1—2 (part). No distinction of shops; coins of Diocletian only.

Years 2 (part)—6. Four shops, two of Diocletian, two of Maximian; in each pair, one shop using star as distinctive mark.

Years 7—8 (part). Two shops, one of Diocletian, one of Maximian; latter using star.

Years 8 (part)—10 (part). Four shops, two ( $\Lambda$  and  $\Delta$ ) of Diocletian and Constantius, two ( $B$  and  $\Gamma$ ) of Maximian and Galerius.

Years 10 (part)—11. Two shops (?).

Year 12. One shop (?).

Where the shops had to be distinguished otherwise than by the emperor for whom the coins were struck, this was done by the use of a letter or star on the reverse. It does not appear that the alternative forms of legend used mark different shops.

In this respect the practice of the Alexandrian mint in some previous reigns was probably different, as I propose to show in a future paper.

[Note. In classifying the coins of Diocletian and his associates under their years, it is necessary to remark that there are a few hybrid coins of the last four years, when the mint was striking for two Emperors and two Caesars with three different series of dates: the crosses occur by use of an obverse die of an Emperor with a reverse die of his associate Caesar or vice versa, so that, for instance, a coin of Diocletian of year 9 may bear the date year 1 owing to the reverse die being one of Constantius; or a coin of Galerius of his year 1 may show on the reverse the date year 8 of Maximian. Examples of this hybridisation may be found, for Diocletian with reverses of Constantius, in DATTARI 5673, 5684, 5808; for Maximian with reverses of Galerius, in DATTARI 5876, 5877, 5920; for Galerius with reverses of Maximian, in *British Museum Cat.* 2622 and a coin in my collection with rev. type Tyche standing and date L H, in exergue Γ.]

## NOTES AND NEWS

THE tragic death of Lord KITCHENER removes from our midst, not only a great soldier, but also one of the greatest administrators of the British Empire, whose career was intimately bound up with the splendid development of Egypt and the Sudan. It was not, however, until comparatively recent times, on his return to Egypt as British Agent, that he had occasion to renew that direct contact with archaeological matters which began with his early work in connection with the Survey of Palestine. The new *Antiquities* law of 1912, regulating the traffic in *antikas*, was one of the fruits of his short Egyptian régime. The main outlines of this law were set forth by Major LYONS in the first number of this *Journal* (vol. 1, p. 45); our experience of its working has been too much interrupted by the great political upheaval of the present time for us to be able to take a just measure of its import. Had Lord KITCHENER's administration not been cut short by the call to another and wider sphere of activity, his wide-ranging mind, which, as it was, left no province of Egyptian interests untouched, would undoubtedly have devised yet further measures for the protection and control, not only of the material antiquities, but also of archaeological work in general.

M. LACAU, the Director of the Service of Antiquities, has left Egypt to resume his military duties in France. Of the officers of the Fund, Mr T. E. PEET, who holds a Commission in the Army Service Corps, is at Salonika, whence he sends good news of himself. Prof. WHITMORE passed through England on his way to America a month or two ago, after a prolonged stay in Petrograd, where he had been working among the refugees in Russia in conjunction with the Zemstvos and the Committee of the Grand Duchess Tetiana Nicholaovna.

For the following paragraphs describing archaeological work at Thebes during 1915-16 we are indebted to Mr N. de G. DAVIES:—"The annual campaign of the Egyptian Expedition of the Metropolitan Museum of New York has been carried through again this winter at Thebes despite the war, though not yet with a full staff. Mr N. de G. DAVIES directed the graphic work of the expedition for the Tytus Fund with the assistance of Mr H. R. HOPGOOD as artist, while Mr Ambrose LANSING took charge of the excavations. Mr H. BURTON divided his valuable help between the two departments.

"Six months' work towards the publication of tomb records yielded results in so far disappointing as they proved unexpectedly limited. The reliefs of the tomb of

Pn-im-ré, which were completely copied last year, received a large accession of material by the removal of native proprietors and a thorough clearance of the site. Many hundred fragments of the reliefs which had been lost by the collapse of the rock roof and walls in ancient times were recovered, and as many of these preserved the original colours in an almost perfect state, an idea of the former brilliance of the tomb was gained which is in strongest contrast to the now blackened and abraded walls. While nothing of extreme importance was added to the inscriptions or scenes, since the amount lost is still considerable, yet in the sum what previously existed has gained greatly in value. The task of identifying, replacing, and copying these fragments proved a very laborious one and is not yet quite complete. Mr Ernest MACKAY, with Mr MOULD's generous permission, is now engaged in building up whole walls from these fragments and restoring to this fine tomb something of its old architectural form. We hope to bring out the volume early in 1917. Mr HORGOOD, as soon as men of his age in England were being summoned to the colours, volunteered for service, but before he left his industry had made it possible to carry out our programme far beyond present requirements.

"Mr LANSING had the rare happiness of a site which was almost sure to be remunerative and might prove extremely important, as it consisted of the other half of the sunk court in the 'Birâba' from which Mr CARTER had already drawn such rich booty. The former expectation was fully gratified, but the larger hope gradually faded as one tomb chamber after another shewed coffins riddled by the white ant and burials crushed by falls of rock. But if more might have been looked for where twenty feet of *débris*, untouched since the middle of the 18th Dynasty, covered burials of its early years as well as the scattered relics of the previous period, and though no textual material rewarded us, yet the harvest of bronze vessels, toilet articles, weapons, scarabs, parts of musical instruments, and a Ramesside foundation deposit, much of it in surprisingly good condition, is not likely to be often repeated at Thebes. Perhaps as valuable though not as immediately gratifying a gain is the careful record, photographic and otherwise, of a series of burials most of which are free from all suspicion of intrusion, and some of which will undoubtedly offer features of very considerable novelty."

"The visit of thousands of convalescent soldiers to Luxor gave an opportunity to many of these, by a visit to our excavations, to see ancient history in the making. The results of the interest thus awakened may be more far-reaching than any, since many of our visitors came from lands where historic records of past civilisation are unknown. The interest shewn by men of all ranks was often surprisingly deep and well informed."

Mr Orie BATES has sent to Mr GRIFFITH a summary of the results of his winter's work in Nubia on behalf of the Peabody Museum of Harvard University. The site selected for excavation was Gammay, in the Second Cataract, about fifteen miles above Halfa.

"Near Abkah, two miles from Gammay, we found a patch of early Dynastic ('Archaic') burials, of the ordinary type, but revealing one or two minor features which were new to me. For example, one of the bodies had in position a feather

cloak cast over the shoulders, and another wore a head-dress of birds' feathers. Near by we found three or four New Empire graves; one of which contained a very good example of black-topped ware in association with the usual New Empire pottery. Near Gammay itself we found extensive late pre-Dynastic cemeteries, which had been subjected to very severe plundering. A few late C-group burials, equally plundered, were also found. All these cemeteries were nearer to the *gebel* than to the river. Hard by the river I excavated a small Romano-Nubian ('Meroitic') cemetery, from a few unplundered graves of which some material of great interest was obtained—for example, one grave yielded five exceptionally fine bronzes of classical origin. Inscribed material was rare, but I have four or five graffiti on pottery and one broken Meroitic stela. I was also very much pleased to get from this cemetery a number of incised black-ware jars, hand-made and pebble-polished, which are importations from the Southern Soudan.

"Covering part of the Romano-Nubian cemetery at Gammay, and extending to the southward of it, was the group of small mounds which had originally attracted Dr REISNER's attention, and which led him to suggest my undertaking the site. These, on excavation, proved to be pagan burials of the third or fourth century A.D., and I have myself little doubt but that they represent the graves of a small community of Blemyes, who here established themselves on the Nile. As far as I have been able to ascertain, the only other groups of these mounds are those at Wawa, at Gebel Ferket, and on the Island of Sai."

This highly important excavation greatly extends the known range of prehistoric Egyptian settlements. A complete account of the Expedition will appear as a special volume of the Harvard African series under the auspices of the Peabody Museum.

For the following note we are also indebted to Mr GRIFFITH.

Dr George A. REISNER, with sixty skilled Egyptians and some hundreds of local workmen, spent three months from January 22 to April 24 at Gebel Barkal in strenuous excavation. The Egyptians at once established themselves in huts in the crevices of the rocks just downstream from the *gebel*, and Dr REISNER occupied our old Oxford Expedition quarters at Merawi on the opposite bank, from which Mr H. S. WELLCOME's motor launch transported him daily to the scene of work. First the pyramids were carefully examined; their burial chambers, always approached from the river side, were all discovered and cleared, and several chambers were found of which the pyramid super-structures had entirely disappeared. Unhappily every one of these had been plundered in antiquity more than once, the contents being all brought to the surface; here anything that was not worth carrying away had been smashed to pieces and the fragments lay exposed to sand-wear and other destruction. No inscriptions were recovered, and the most valuable finds were remnants of pottery that will be very useful for dating. Mr DUNHAM's study and restoration of the fragments show that the pyramids belonged to the Meroitic period, and Dr REISNER has already made a provisional classification of the latter according to age. At the temples of Barkal also much progress was made. The earliest work identifiable is of Tethmosis III who, with Tethmosis IV and Ramesses II, is represented by sculptured blocks. After these kings no others are yet traceable until Tirhakah and the obscure

Ethiopian kings who followed him. A Meroitic king Manach..., who bears also the Egyptian prenomen of Amenhotp III, Nebmare, has left a conical sandstone block covered with sculptured necklaces, etc.—nothing less than the bedizened omphalos of Ammon which, according to Quintus Curtius, represented the god at his oracular shrine in the Oasis of Ammon. Every one interested in the history of Ethiopia will congratulate himself on the fact that its ancient capital of Napata is being excavated by an archaeologist at once so precise, so skilful, and so inspired; backed by the vast resources of the Boston Museum, we hope that Dr REISNER will carry this great enterprise to a final conclusion.

On Tuesday, May 16th, the last lecture of the Spring Session was delivered by Mr W. L. NASH at the rooms of the Royal Society. The subject was "The Egyptian Ceremony of the Coronation of the Pharaoh, and its Magical Basis." There will be no further lectures until the autumn, when they will be announced in due course.

Just as we go to press news reaches us of the sudden death, in Paris, of Sir GASTON MASPERO, Permanent Secretary of the Academy of Inscriptions and Belles-Lettres, and for many years Director of the Service of Antiquities in Egypt. No Egyptologist of the older generation was more widely read and genuinely appreciated, both by serious students and by amateurs, than the French scholar whose loss we are to-day called upon to mourn. His immense and universal learning, his profound knowledge of both men and affairs, and not least of all his unfailing courtesy and his kindly disposition gave him a position of eminence that was recognised far beyond the bounds of the comparatively restricted science to which he devoted his life. The deepest sympathy will be extended to Lady MASPERO, upon whom, so soon after the loss of her already distinguished son M. JEAN MASPERO, this second blow has now fallen.

M. MASPERO's scientific career extended over a period of very nearly fifty years, and it would not be easy to find a parallel to the intense industry and enterprise displayed by him throughout that period. Its first-fruits were in the main philological, consisting of new editions of texts with commentaries and translations,—the *Essai sur l'Inscription dédicatoire du Temple d'Abydos* in 1867, the thesis on the *Genre épistolaire chez les anciens Égyptiens* in 1872, these being followed by other less important papers too numerous to mention. In 1874 M. MASPERO succeeded E. DE ROUGÉ in the Professorship at the Collège de France, and from that time onward his influence on the progress of Egyptology in France was paramount. In 1879 he revived the *Recueil de Travaux relatifs à la Philologie et à l'Archéologie égyptiennes et assyriennes*, a periodical that had come to an abrupt end through the war of 1870 after the appearance of a single number: this periodical is now in its thirty-seventh volume, and is one of the principal organs of our science. The year 1880 saw the inauguration of the French Archaeological Mission in Egypt, later rechristened as the French Institute of Oriental Archaeology. This was almost entirely the creation of M. MASPERO, and he was its first director; the activities of its members now occupy a whole library of stately volumes.

From 1881 to 1886 and again from 1899 to 1914, a total of twenty years in all, the Directorship of the Service of Antiquities was held by M. MASPERO, and whatever estimate may be ultimately taken as to his achievement there, it will, we think, be unanimously agreed that no other living Egyptologist could have handled this arduous post with as great success. To be a French official under a British administration, to be constantly harassed by the incompatible demands and wishes of both scholars and amateurs of many different nationalities, to have to cope, under the restrictions imposed by the Capitulations, with the problems raised by the ever-growing trade in *antiques*—this was a task that required qualities of an altogether exceptional kind. In this post M. MASPERO, thanks to his incontestable authority and to his invariable amiability, retained up to the last the high esteem in which he was held.

To the general public he is naturally mainly known by the more popular of his writings—by his manual of Egyptian Archaeology, by his translations of all that remains of old Egyptian fiction in the volume entitled *Les Contes populaires de l'Egypte ancienne*, and above all by his great *Histoire des Peuples de l'Orient classique*. As a writer of occasional essays on Egyptological subjects his work was wholly admirable, replete with understanding of the Oriental mind, both ancient and modern, always sympathetic, yet never lacking either in humour or in perspective. It is here, perhaps, more than in his strictly scientific work that he displayed the full measure of his great talents. The same qualities of insight and sympathy are particularly needful in dealing with the religious beliefs and sentiments of an ancient people, a field in which M. MASPERO was the acknowledged master; whatever details of his synthesis may hereafter have to be emended, as a whole it will continue for many a long year to dominate and leave its impress upon all our studies of myth and ritual. As a translator he often succeeded instinctively in fathoming the sense of passages where grammatical analysis was unable to point the road; his translation of the Pyramid Texts, in particular, must be adjudged a masterly feat, when we consider the time at which, and the conditions under which, it was made.

In the matter of Egyptian grammar M. MASPERO found himself unable to see eye to eye with the German school whose work seems now, to most students of hieroglyphics, to have established itself on a solid and unsatisfactory basis. During the last months of his life M. MASPERO was engaged upon an exposition of his own views concerning this subject; doubtless his criticisms here would have been as suggestive and interesting as they have always proved to be, and it is much to be hoped that enough of the work was committed to paper for us to be able to look forward to further instalments in the pages of the *Recueil*.

## NOTICES OF RECENT PUBLICATIONS

*Le tissage aux cartes et son utilisation décorative dans l'Egypte ancienne.* By A. VAN GESNER and G. JÉGUERIN. Neuchâtel, 1916. Pp. 130. Twelve plates and over 135 figures in the text.

A very ingenious method of pattern weaving for girdles and other narrow bands has of recent years been discovered in use amongst more or less primitive peoples in Europe, Asia, and Africa at the present day. A number of playing cards or other objects of similar shape are pierced at the four corners and one warp thread is passed through each hole. The 'shed' through which the shuttle carries the woof is formed by the space between the two pairs of threads (*AB, CD*) in such card, and the pattern is produced by giving the cards simultaneously a quarter turn, thus opening a new shed *DA, BC*, and continuing to do so until a certain point is reached when reverse turns may become necessary owing to the progressive tightening of the threads with each turn. This process produces a wave in the fabric with its apex at the reverse, and it is capable of infinite variation in detail, so that a great variety of patterns can be obtained by proper manipulation of the threads. A loom is sometimes employed and various weaving apparatus, but none of these things is really essential, as the ends of the warp need only to be firmly held and the rest of the manipulation can be done by the fingers. Clear evidence of the employment of the method has been found in ancient Greece and pierced weaving tablets of ivory are known in the Coptic period in Egypt. The main object of the present work is to establish the fact of card-weaving having existed in Ancient Egypt also, and further to suggest that it originated in Egypt. The authors first point to the girdles of the royal statues of the XVIIIth Dynasty with their chevron, lozenge, wavy line, and other patterns; they show that the same designs occur in royal monuments of the Middle Kingdom. They discuss also the remarkable cloth-patterns of the "façade-stelæ," as they well term the highly decorated variety of false door. These are to be found early in the Old Kingdom and must be connected with the supports of the very ancient Horus- or ka-name of kings; according to an ingenious conjecture they represent the distinctive panelling of the enclosures of royal palaces, decorated with woven designs. Thus in fact the employment of patterned weaving in clothing and elsewhere seems to be a mark of royalty. The patterns of all such objects are systematically analysed, and are found to be capable of production by the card process and to result naturally from its employment. No clear representations of card weaving, however, are found on the monuments, nor have the tablets or cards themselves appeared in Ancient Egyptian remains; of ancient patterned weaving there is only one important instance and that is the girdle, or rather scarf, as the authors show, in the Liverpool Museum, with the name of Ramesses III. The authors have reproduced its pattern by card weaving, but the width implies a very large number of cards such as would at least be difficult to manipulate. The Egyptian patterns could be produced by other processes than card weaving; there is one touchstone, however, by which the matter could be decided, namely an examination of the original to find the infallible marks of the reversing process. Unfortunately this has not yet been undertaken, and the excellent photograph obtained by the authors cannot decide the point. Until it is undertaken the thesis must be considered as not proven, high though the authority of VAN GESNER stands. None the less we may thank the authors for a highly interesting and suggestive work. M. JÉGUERIN's ingenuity in the interpretation of Egyptian archaeological problems has never been better displayed than here. To anyone with capable fingers and time to spare the working out of the card process by the directions in the book will be an amusing exercise. This elaborate memoir is printed luxuriously on very fine

paper and illustrated by coloured and other photographic plates and by a page of actual samples woven in imitation of the Egyptian patterns. The coloured cover unfortunately is not an artistic success and is likely to be soon spoilt by use.

P. L. GRIFFITH.

*Atlas zur Altegyptischen Kulturgeschichte.* By WALTER WRESZINSKI. Lieferungen 1—5. Leipzig [1914-15].

Up to the present time five parts of this work have reached this country, containing a hundred plates. They furnish a large sample by which to test the merits of the whole of WRESZINSKI's ambitious undertaking. The form of the publication is peculiar. The size is that of a moderate quarto and it is made up entirely of separate loose plates; the peculiarity is that each "plate" is complete in itself, comprising description and numerous illustrative figures along with the main subject; this "plate" may fill one page, or two or even three pages in a folded plate, but whatever its extent it is printed on one side only so that the whole is visible at once. Besides the main picture all subsidiary figures in the text, both small and great, are photographic, and it is a triumph to have printed the typed text and photographic figures together with such accuracy and clearness. May the smooth hard paper not betray the trust reposed in it!

It is a wonderful collection of scenes and details regarding life in Ancient Egypt which WRESZINSKI has here gathered. Nine-tenths of the subjects are from tombs of New Kingdom officials at Thebes, chiefly of the Eighteenth Dynasty; a few date from the reign of Ramesses II, and there are, besides, the famous kitchen scene from the tomb of Ramesses II in the Twentieth Dynasty, and some extracts from the tomb of Aba of Dyn. XXVI. From Memphis there are two scenes of Dyn. XVIII and several out of tombs of the Old Kingdom, but of less importance, as most had already been published in full photograph by the Leyden Museum. Some of the Theban subjects were copied by the early explorers, WILKINSON, CHAMOLLIOT, ROSELLINI, and PARISSE, but have been neglected since their time. It is very delightful to recognise in WRESZINSKI's photographs originals (now sadly mutilated) of those familiar drawings, showing that they were accurate in the main, though Parisse alone had the patience and art to render the style with correctness. WRESZINSKI gives full descriptions and bibliographies; his principle has been, where possible, to introduce photographs of original objects or of figures in the round corresponding to those depicted in the flat painting or low relief of the scenes. Thoroughly carried out this principle would be of the highest value; unfortunately there are some serious defects in the execution of the plan. No one will deny the utility of many of WRESZINSKI's explanatory illustrations, convincingly proving to expert and layman alike what the artist meant. But there is throughout the publication a curious lack of feeling for age, material, and style, which seems to show not only personal limitations, but also how little the principles of archaeological research are as yet understood in some quarters. To illustrate without comment a British urn by a modern flower-pot of approximately the same outline would hardly be considered fair to the reader in an authoritative work on the history of pottery. Yet WRESZINSKI seems to think equal vagueness not inappropriate to our deportment. Thus, in a banqueting scene of the XVIith Dyn. bowls which the photograph shows clearly to have been of fluted design in some metal are illustrated by plain vessels obviously of the roughest pottery (Taf. 7, nos. 16, 19); a sickle of the composite jaw-bone type of the New Kingdom is represented by an iron sickle of the Roman age (Taf. 14, no. 4); a carpenter's stool by what looks like a Roman stand or grinding block of trachyte (Taf. 17, no. 5). Such vague or misleading illustrations, all the more startling because scrupulously given in photograph, can serve no useful purpose; if any of them were admitted, their differences of age, material, etc. should at least have been stated. After this it is not surprising to find the XXVIth Dyn. sculptures of Aba given with no insistence on the important particulars in which they are mere copies of Old Kingdom scenes that had long since passed out of practical life. Another surprising defect is that the subjects on the plates follow each other indiscriminately without any sort of grouping either by age or category, except perhaps in the last part. When the work is complete, a good index will doubtless obviate the worst effects of this unfortunate arrangement. WRESZINSKI acknowledges help from Mr N. de G. DAVIES in the selection and interpretation of the Theban scenes which he knows so well, and the tombs are easily found in GARDINER'S

and WERNER'S *Catalogue*, which shows their situation and the titles of the owners. The photographs are good, though on a small scale; their frequent obscurities however prove how indispensable are the carefully worked out drawings in line and colour which Mr and Mrs DAVIES are gradually accumulating. WRESZINSKI, who has laboured here and elsewhere with much energy and with admirable ideas, has not given himself time to work out his scheme in proper detail. All the same in this publication he presents us with a great treasure of archaeological material.

F. L. GRIFFITH.

*The Influence of Ancient Egyptian Civilization in the East and in America.* By G. ELLIOT SMITH. Reprinted from *The Bulletin of the John Rylands Library*, January—March, 1916. Manchester, University Press, 1916. Pp. 32. Seven illustrations.

The present paper by Professor ELLIOT SMITH is closely related to his book on *The Migrations of Early Culture*, and with certain others of his writings, which should be taken together in attempting to survey the views which he expresses. The range which he covers is so wide and the number of points which he wishes to be considered, or rather accepted, is so great that it is impossible adequately to review his theory in a brief space. To examine critically the argument brought forward would involve careful investigation of the evidence upon which it is founded; not that the evidence is specially new, since it has chiefly been culled from the published works of others, but it is very necessary to sift the solid material and free it from any wild statements before the validity of the main assumption can finally be tested. Professor ELLIOT SMITH's thesis is a revival in elaborated and more clearly focussed shape of a proposition which has frequently and during a long period been discussed, and which has never really been lost sight of, though in recent years it has perhaps been less prominently to the fore than was the case during the latter half of last century. This has been due, no doubt, partly to the more careful and cautious methods of modern anthropological investigation, which require a very full and searching enquiry into the data, and careful diagnosis of statements previously made, before an important and far-reaching theory can be considered as tenable; and partly, perhaps, to the somewhat depressing effect produced by some of the wilder theorists who have dealt with the problem of Old- and New-world culture connections.

In a general way Professor ELLIOT SMITH may be said to be working on the right lines for his purpose, that is to say he has endeavoured to bring together a mass of facts calculated by their *cumulative* effect to indicate very strongly, or, as he thinks, prove that the essential elements of the ancient civilizations of India, Further Asia, the Malay Archipelago, Oceania, and America were brought in succession to each of these places by mariners whose oriental migrations (on an extensive scale) began as trading intercourse between the Eastern Mediterranean and India some time after 800 B.C. He believes that the evidence proves that an elaborate culture-complex, associated with belief in ritual and practices, originating in the main in Egypt, was disseminated over an enormous area chiefly through the agency of the maritime trading enterprises of the Phoenicians, and that by eastward dispersal this culture-complex eventually reached the New World. His collection of facts, derived principally from other writers, is an important and suggestive one, but he is less fortunate in the manner in which he presents his case. His work is marred by a dictatorial, one may even say hectoring tone, which is quite unjustifiable and wholly uncalled for. His writings are freely interlarded with invective against those who are not of his opinion and those who prefer to tread cautiously on possibly unstable ground. This is the more remarkable since he has himself vehemently inveighed against the reputed employment of similar invective by others. However, his methods are more likely to affect his own reputation than they are to cause a serious flutter among the opponents or critics of his main theory; and they need not be taken too seriously.

He has endeavoured to stiffen his argument by the statement (*Mon.*, 1915, p. 163) that "As to the possibility of any invention originating wholly independently in more than one centre, the facts of history no less than the common experience of mankind are fatal to any such hypothesis." This is a somewhat hazardous dogmatism, and it is open to question whether any physical anthropologist, however eminent he may be in his special branch, is justified in laying this down as an axiom to be accepted without reserve by those who have made a life-long study of cultural anthropology. The latter would without doubt be grateful to Professor ELLIOT SMITH if he will deploy his material in some form which admits of more convenient examination by those who wish to follow and evaluate his argument. Let him publish

a series of maps showing clearly and in detail the geographical distribution of the several customs, arts, and practices to which he alludes in support of his theory, and, further, let him give his authority for each of these occurrences individually. It is true that a map is published in his "Migrations of Early Culture," but it is too confused and too incomplete to answer the purpose adequately. If he will do this, the details of his argument will be able to be examined in a satisfactory manner, his material checked, and the scientific value of his thesis criticised judicially and without bias. Or, if the issuing of a large number of maps proves too elaborate a procedure, the material might be conveniently tabulated, item by item, under geographical headings, with the authority and reference for each statement appended. When this is done, detailed discussion of his thesis and of the facts upon which it is founded will be rendered feasible and inviting even to those experts in cultural anthropology whose labours in search of scientific truths leave them but little leisure. The problem involved is worthy of such efforts; and such an ordered compilation of facts, un-embroidered with imaginary descriptions of and uncomplimentary references to "the present generation of ethnologists," would be a valuable contribution to ethnological science, and would aid materially in elucidating an interesting problem which has been the subject of controversy during 30 or more years.

HENRY BALFOUR.

*The Coptic Psalter in the Freer Collection.* By W. H. WORRELL. New York, The Macmillan Company, 1916. Pp. xxvi+112. Six collotype plates.

This edition has been expected from Prof. WORRELL for some time. It will be welcomed, although the text of the Psalter which it adds to those hitherto available is not strikingly characterized. The invaluable MS. which Dr. BUDGE published, some years ago, has given us a standard whereby to gauge other and less complete texts; the new one does not appear greatly to vary from it except in orthographic peculiarities. To assign its *provenance* upon such evidence, hardly even dialectal, would be rash. It certainly does not—if previous experience is to be taken into account—seem probable that the uncontaminated Sahidic idiom it exhibits should have any but a fortuitous connection with the neighbourhood of Gizeh, where it appears to have been found.

The script of the Freer MS. is remarkable, for it exhibits two forms of early incial—the square and the rounded—as undoubtedly contemporary: the same scribe used both alternately. I should be inclined to date his hand in the first part of the 7th century, at latest.

The edition, so far as can be judged without a collation of the text, seems careful and adequate, and the Introduction has several useful observations. The Coptic is printed with an admirable new type, modelled upon the "square" hand of the Freer MS.

W. E. CHAM.





Henry Taunay

Sir Gaston Maspero K.C.M.G.

## SIR GASTON MASPERO, K.C.M.G.

BY PROFESSOR EDOUARD NAVILLE, D.C.L., LL.D., F.S.A.

GASTON MASPERO, born on the 23rd of June 1843, had just passed his seventieth birthday when he died suddenly on the 30th of June, 1916, while addressing the "Académie des Inscriptions et Belles-Lettres."

He was not a Frenchman by birth. His father was a political refugee from Milan; but the son Gaston was naturalized when very young, and thus enabled to enter the École Normale, the famous college which has been the nursery of so many eminent scholars and scientists, and to which Frenchmen only have access.

Even as a youth at the Lycée Louis le Grand he already felt the spell of Egypt, and later, at the École Normale, he carried on his Egyptian studies privately. At that time, he was introduced to E. DE ROUGÉ, the great French Egyptologist, who encouraged him and gave him some of his books. He did not stay long at the École Normale, which he had entered in 1863. In 1867, owing to some troubles in the school, he was obliged to leave, and went with a French family to Montevideo. The head of this family was occupied with studies on the language of the Incas called Quichua; and MASPERO, without assuming any responsibility for the conclusions drawn from these researches, had to bring them out.

A year later he was again in France and very soon published the result of his own Egyptian studies, which he had continued in South America: the translation of the long inscription of Rameses II at the entrance to the great temple of Abydos.<sup>1</sup> The copy made by DEVÉRIA had been handed to him by MARIETTE, to whom the essay is dedicated. In 1869 he published the "Hymn to the Nile"<sup>2</sup> from two papyri in the British Museum, *Sallier II* and *Anastasi VII*. In both these works he appears as the follower of E. DE ROUGÉ, who may be said to have been the founder of Egyptian philology. Indeed, nobody before DE ROUGÉ had translated a running text. Having set the example and shown the method by translating the first seven lines of the inscription of "Ahmes the Sailor," in 1852 he revealed to the Academy the "Tale of the Two Brothers," and in 1856 the poem of Pentaur. In turning into French these two hieratic books, DE ROUGÉ opened the wide field of Egyptian literature. He had encouraged MASPERO, who, studying his books, was so imbued with his principles

<sup>1</sup> *L'inscription dédicatoire du temple d'Abydos, texte traduit et annoté, suivi d'un essai sur la jeunesse de Sésostris par G. MASPERO.* Paris, Franck, 1862.

<sup>2</sup> *Hymne au Nil, publié et traduit d'après les deux textes du Musée Britannique par G. MASPERO.* Paris, Franck, 1869.

that the young Egyptologist could write in DE ROUGÉ's biography that it was to him that he was indebted for his career<sup>1</sup>.

In the same year (1869) in which he published the "Hymn to the Nile" MASPERO was appointed DE ROUGÉ's assistant at the École des Hautes Études. He did not work long, however, with his master, who died at the end of 1872. In 1874, being only 28 years old, he was appointed DE ROUGÉ's successor as professor at the Collège de France, the school of learning founded in the sixteenth century by the illustrious Hellenist, Guillaume Budé. A chair in this famous school has always been considered by scholars, alike in France and abroad, as the highest position a teacher can attain in any of the various branches of learning.

Shortly before this MASPERO had taken his doctor's degree, by presenting, according to French academic custom, two compositions: one an essay in Latin "de Carchemis oppidi situ," and the other a book entitled *Du genre épistolaire chez les Egyptiens de l'époque pharaonique*. It was the first time that Egyptology had been submitted to the judgment of the Paris University. This book contains a great number of translations, most of them from papyri in the British Museum, and some of them quite new.

From that time MASPERO's energies were turned into two different channels of activity, one in Paris and the other at Cairo. He lectured in Paris until January 1881, when he first visited Egypt. MARIETTE was then dying. The founder of Egyptian archaeology, the first scientific explorer, who had succeeded in spite of the greatest difficulties in creating the Bulaq Museum, was a Frenchman. France was very desirous that the scientific work in Egypt should remain under the influence of the nation which had produced CAIAMPOLLION. Therefore at the end of 1880 it was decided to found the "Institut français d'archéologie orientale," the French Parliament having voted a sum of money for its creation; and at the beginning of 1881 MASPERO, who was to be the director, arrived at Cairo with two young Egyptologists and two Arabic scholars. He had only been there a few weeks when MARIETTE died, and MASPERO was at once appointed director of the excavations and of the Bulaq Museum. This marks the beginning of his first period in this capacity, which ended in 1888 when he returned to Paris to take up again his professorial duties at the Collège de France.

His first directorship was very different from the second. Circumstances then were not what they are to-day; there was only the Bulaq Museum, much too small for the constant increase of antiquities, which had to be put away in store-rooms, the shounah of the Arabs. The European assistants as well as the native officials were few in number, and MASPERO had great difficulties in obtaining money from an embarrassed treasury. It was the time of great financial and political troubles; these culminated in 1882 in Arabi's revolt, which obliged all the Europeans to leave the country. MASPERO had to go with the rest; he left his museum, not knowing whether he would ever return in the same capacity, or in what state he would find the precious collections which had been consigned to the care of one or two native officials. The late Sir Charles Wilson told the present writer that, having entered Cairo in the morning with the English troops, he went in the evening of the same day to Bulaq to see what had become of the museum, and was happy to find it untouched.

<sup>1</sup> "C'est donc à Monsieur de Rovas que je dois ma carrière."

MASPERO returned as soon as possible, in the autumn, and resumed his position and the work which had been interrupted. MARINETTE, even on his death-bed, had not ceased to think of his excavations, specially of his last undertaking, the opening of the smaller Pyramids. He was only half conscious when his friend BRUGSCH came in from Sakkarah and brought texts which he had copied in two of the Pyramids just entered, those of Pepi I and Merenra. MASPERO, immediately after his appointment, continued the work of his predecessor and opened three more. The copying and translating of about 4000 lines of inscriptions took several years. He began the publication of text and translation in 1882, and ended the work in 1894.

Another great archaeological event which marked that period was, on the denunciation of MOHAMMED ABD ER-RASSOUL, the discovery of the famous hiding-place at Deir el-Bahri where the mummies of the great kings of Egypt had been stored at the time of the XXIst Dynasty. This discovery was made in July 1881 when MASPERO was in Paris; BRUGSCH Bey and AHMED Effendi KEMAL went by the steamer of the museum and gathered this marvellous collection, which is unique amongst the archaeological remains of any country. Where do we find, except in Egypt, not only the history or the monuments, but the bodies themselves of the great kings whose high deeds are related on the walls of the temples which they erected and which were adorned with their statues!

In this *Journal* I must not omit to say that to the time of MASPERO's first directorship, to the year 1883, belongs the beginning of the excavations of the Egypt Exploration Fund, which had been founded the year before by a committee with Sir Erasmus WILSON as chairman, and having among its members Sir Charles NEWTON, Reginald Stuart POOLE, and Miss Amelia B. EDWARDS. In the winter of 1883-4 the present writer started the excavations of the Fund by his identification of Pithom at the place called Tell el-Maskhuta.

MASPERO from the beginning was most friendly and benevolent to the Fund, the work of which he always encouraged. But political circumstances did not leave him so free as in later years; and in the first contract made with him about excavations at Pithom it was stipulated that every monument discovered should go to the museum at Booq, and that the excavator should not take away anything. At the end of the work I brought to the museum on my dahabeeyah everything I had found; but as the excavations had been satisfactory, and in order to encourage the Fund to further effort, MASPERO agreed that two of the monuments, viz. a crouching scribe, the recorder of Pithom, and a granite hawk, should be given as "don gracieux" by the Khedive to the British Museum, where they are now exhibited in the Great Gallery.

In 1886, owing to various circumstances, one of which was Madame MASPERO's health, MASPERO was obliged to return to Paris, where he remained thirteen years. He resumed his lectures at the Collège de France, in which he generally prepared books or articles which he published afterwards. These years were marked by his two greatest works, viz. the publication and complete translation of the texts of the Pyramids and his Ancient History of the East, in three quarto volumes, to which we shall revert. In 1883 he became a member of the "Académie des Inscriptions et Belles-Lettres," and in 1887 was made Honorary D.C.L. at Oxford<sup>1</sup>. This was the only occasion on which he visited England, and he stayed only a few days.

<sup>1</sup> MASPERO was also an Honorary Fellow of Queen's College, Oxford. Ed.

In 1899 he was asked to return to Egypt; Lord CROMER particularly insisted on his going to assume the directorship of the Museum in Cairo, which had just been built, and to organize the "Service des Antiquités," which is now one of the important administrative departments of the country. During that time he tried to keep up his literary activity as well as he could, but he had to reduce it in a great measure.

His second directorship of the "Service des Antiquités" was marked by the complete organization of that Service, which hardly existed before. This he could not have accomplished without the strong support of the Egyptian Government, and of Lord Cromer and his successors. Money was granted in sufficient quantity, and a whole staff of officials was appointed, not only for the Museum but for keeping an eye on everything connected with antiquities. The country was divided into five inspectorates. At the head of each of these is an European inspector, with native assistants. These inspectors may have to conduct excavations themselves, but their chief duty is to report on anything which turns up either fortuitously or in the work of the fellahs.

The great difficulty at present is that the natives know what antiquities are, and the high prices they fetch in the market. Many of them have worked for European or American excavators. They find out the places where antiquities are likely to be discovered, especially cemeteries, but they do not reveal them; and during the summer, when there are but few Europeans in the country, they carry on their own excavations for the benefit of the dealers. This illicit trade the inspectors are trying to prevent, but it is only with great difficulty that they can have any influence in this respect.

MASPERO had also to regulate excavations in general. The Egypt Exploration Fund was not the sole foreign society working in Egypt, as in 1883. Not only learned bodies but also representatives of museums asked to be allowed to dig, and sometimes groups of people interested in the antiquities of Egypt applied for permission to do so, with the condition that they should have a certain share of what might be unearthed. These excavations, generally made by competent men, have often led to important results. Besides Prof. PETRIE, one of the veterans in Egyptian archaeology, and his assistants, Prof. GARSTANG representing England, Prof. REISNER America, Prof. SCHIA-PARELLI the Turin Museum, Prof. STEINHORFF and the Deutsche Orient-Gesellschaft, under Dr BORCHARDT's direction, Germany, have all brought to light a considerable number of monuments of all kinds which have greatly furthered our knowledge of the life and customs of the Old Egyptians. They have also contributed to solve some historical problems.

The permissions to dig were granted by a committee on MASPERO's recommendation. Of the many persons who have excavated in Egypt, all owe a debt of gratitude to MASPERO, not only for the great courtesy with which he received their requests, but also for the facilities he gave them for carrying on their work, and for his generosity in the division of the results of the excavations. The present writer has especially to express his thanks for the valuable support MASPERO gave him during several years when he was working for the Egypt Exploration Fund. MASPERO's kindness sometimes brought him into difficulties, as when he granted concessions to natives, an action severely criticised.

During his second directorship he did not himself excavate, this work being assigned to inspectors. His efforts were devoted in the first place to the arrangement

of the Cairo Museum, the immense building in which are gathered all the antiquities discovered since MARIETTE first started the small museum at Bulaq. Thence it had first been removed to the Palace of Ghizeh, one of the last constructions of the time of the Khedive ISMAEL PACHA, a showy and lightly built mansion, especially suitable for a large harem, and the solidity of which was doubtful. The new building had been finished and the contents of Ghizeh transported thither shortly before MASPERO arrived. He had to classify this collection, the riches of which one cannot conceive before having gone through these lofty galleries. The Catalogue had already been begun; MASPERO enlisted various scholars for its pursuance, and it consists now of more than 50 volumes in quarto size with numerous plates, and is not yet finished.

MASPERO wrote the Guide-book to the Museum, of which there were several editions, in both French and English. This Guide-book is most interesting and instructive; it contains many expositions of the writer's point of view on archaeology, art, history, and religion. The fault of the book is perhaps that it is too scientific for ordinary travellers and not sufficiently practical for reference. Its value can hardly be appreciated by the ordinary visitor to the Museum.

One of the principal objects of MASPERO's attention and care was the strengthening of the monuments which were going to ruin. For instance, owing to a large sum of money which had been granted by the Government, M. LEGRAND set to work to raise the fallen columns of the great Hypostyle Hall at Karnak. This long and difficult task, which lasted several years, is now finished, and visitors are able to walk, as did the present writer in the spring of 1914, through this forest of huge columns, which was in antiquity considered one of the seven wonders of the world.

At the same time, the temple of Luxor was entirely excavated, except the mosque of the patron saint of the village. The wall of the passage which runs round the back part of the temple at Edfu was also strengthened and partially rebuilt. But MASPERO's attention was chiefly attracted to the temples in Nubia, the existence of which was threatened by the barrage of Assuan, which turns the lower part of Nubia into a lake. The first thing to be done was a complete exploration of the country and of all the cemeteries it contains. This was accomplished by Prof. REISNER or under his direction. At the same time a description of the temples was compiled and copies of all the inscriptions were made by various scholars; a work which has already run into a dozen fine volumes. All this MASPERO superintended during his annual journeys in Upper Egypt. He generally started in December in the dhu'l-beeyah of the Museum, went straight to Nubia, stopping at various places on the way down. During his last journey in the winter of 1914-5 he visited the excavations of the Fund at Abydos. We had just got into what I regard as the tomb of Osiris, and had cleared the end of the northern nave of the great pool where the ceiling of huge monoliths is still preserved, as well as the granite pillars, giving an impression of great power and architectural skill.

In 1909 the Congress of Orientalists met at Cairo, and during that time a telegram informed MASPERO that the King of England had raised him to the dignity of K.C.M.G.

The difficulties of the administrative work, which did not always go on very smoothly, and the climate of Egypt in the summer months acted on his health, so that in the spring of 1914 he was obliged to resign. He returned to Paris a few

days before the war broke out, and was immediately elected by the "Académie des Inscriptions et Belles-Lettres" as its "Secrétaire Perpétuel." He had hardly assumed his new position when he was attacked by a severe illness, brought on partly by the departure of his youngest son for the front. He recovered sufficiently to resume his duties at the Collège de France and at the Académie; but the death of his son in February 1915 was a terrible blow to him. Nevertheless he did not relax his activities, which were, however, too much for a weakened constitution, and on June 30th, 1916, he died suddenly in his chair while in the act of rising to address the Académie.

His scientific work is enormous and cannot be described in a few pages. What enabled him to accomplish so much was a combination of intellectual gifts rarely met with, which were an object of envy to his colleagues. To an unfailing memory he joined a remarkable quickness in grasping any subject, and, for instance in translations, of hitting at once on the true sense. He certainly was the last "complete Egyptologist" able to embrace all the various branches of Egyptology, which have grown considerably of late and have necessarily diverged. There is hardly one branch of Egyptology, except perhaps the Calendar, on which he has not left his mark.

He began as DE ROUGÉ's pupil, with DE ROUGÉ's principles, and like his master at first attempted translations. This may be considered as his favourite work. He never published an inscription without translating it. He was very keen on being the first to put an Egyptian text into French or English, and he hardly ever quoted a translation made by another without introducing changes of some kind. In this respect, his most marvellous achievement is his translation of the text of the Pyramids. Before publishing it, he interpreted these texts in his lectures at the Collège de France, and he has himself said what an enormous amount of work they cost him, and the difficulties he had to overcome—difficulties which would have discouraged any other scholar. These religious texts were something quite new. Some of the signs were met with for the first time, the grammatical forms are not those of later times; and besides, all the allusions to ritual, magic, myths, and cosmogony make of these texts a labyrinth through which it seems impossible to find one's way. Add to this the difficulty one finds in all religious texts, viz. ignorance of the manner in which the ancient Egyptians expressed abstract ideas, which must be rendered by something falling under the senses, by some metaphor of which it is necessary to find the key, and one cannot but admire the extraordinary ability revealed in such an achievement as that of MASPERO. It was certainly a venture of which no other Egyptologist, except perhaps BRUGSCH, was capable. Here MASPERO has shown what was the leading feature of his mind; not so much method as intuition, the quick discovery of the truth.

MASPERO himself felt that with the progress of knowledge much would have to be revised in this translation, but he was the first to attempt it; all new translations will have to be more or less based on his, of which a great deal will survive. A new one is announced by the Berlin school; a comparison of the two will be most interesting and instructive.

As to the grammar, he published at the beginning of his career a few studies on grammatical subjects in 1871, namely, *Les pronoms personnels en égyptien* and *Des formes de la conjugaison*, and later on in 1880 *Sur la formation des thèmes trilitères*. But what occupied him chiefly was Egyptian phonetics, the sound of Egyptian words. He had collected a considerable number of notes on grammar, and he intended to publish them

and to show what the grammatical system of the Egyptian language was. This he considered as the crowning work of his long researches. In it he intended to sum up all that he had gathered in his numerous translations, and the results of the insight which he had acquired into the language. He began this work in the last number of the *Recueil*, which appeared in January 1916. He entitled his article *Introduction à l'étude de la phonétique égyptienne*. I must quote here his own words, which are in a sense his farewell to Egyptological science :—

J'ai commencé, dès mes débuts en 1867, à entasser les notes sur des points de grammaire, et, depuis lors, je n'ai cessé d'en publier quelques-unes sans essayer d'en composer une théorie d'ensemble, estimant que, dans ce genre d'étude plus que dans les autres, il ne pouvait y avoir qu'avantage à laisser le temps accroître la masse des matériaux et mûrir les idées. Si j'étais certain de pouvoir vivre une dizaine d'années de plus, je suivrais encore le même système, et je continuerais à donner seulement des fragments sans lien apparent, dont la génération nouvelle ne saisirait pas la portée, tant mes recherches m'ont mené loin du cercle de doctrines où elle se tient. Malheureusement l'âge est venu, et j'en suis arrivé à ce moment de l'existence où l'on ne doit plus compter sur l'avenir, mais où l'on accepte avec reconnaissance chaque jour qui vient : si je ne veux pas risquer d'emporter avec moi toute l'expérience que j'ai pu acquérir pendant un demi-siècle de labour assidu, il convient de mettre à la main l'œuvre et de me hâter. Je n'ai pas l'ambition de composer ici une véritable Grammaire Égyptienne, car j'estime que nous n'en savons pas encore assez pour y réussir : le livre que je commence à rédiger aujourd'hui et que je désirerais, sans trop y compter, pouvoir mener jusqu'au bout, ne sera tout au plus qu'une introduction à l'étude de la grammaire égyptienne. Comme je l'ai dit un nombre infini de fois et imprimé à plusieurs reprises, nous avons en la chance de trouver table rase en matière de langue au commencement de notre science, et nous avons abordé le déchiffrement sans encouvrément de théories préconçues ou de paradigmes prétablis ; ne vaut-il pas mieux profiter de la liberté absolue, dont la fortune nous a gratifiés de la sorte, pour créer à l'égyptien une grammaire qui ne soit inspirée exclusivement ni des modèles purement classiques, ni des modèles indo-européens, ni des modèles sémitiques, mais qui ressorte entièrement d'une analyse des textes entrepris avec l'aide de tous les moyens que la philologie peut nous prêter à quelque ordre de langue qu'elle s'applique ? C'est une partie d'un chapitre préliminaire que je publie ci-joint.

I hesitate to translate this paragraph, which sets forth MASPERO's point of view so clearly that it could only be obscured or weakened by being turned into another language. His principle is very simple. Let us study Egyptian for itself, without attempting to cast it into a Semitic or Indo-Germanic or any other mould. Egyptian may present features which belong to different classes of languages, without itself belonging to any of them. This book begins with the graphic system which expresses three sorts of articulations : "1<sup>o</sup> des consonnes proprement dites supposant l'existence de phonèmes occlusifs et sifflants.—2<sup>o</sup> des voyelles.—3<sup>o</sup> des sonnantes." The chapter published refers only to consonants. This classification of the Egyptian letters shows that he was by no means in agreement with the German school. His opposition will have come out strongly in the chapter on vowels, which I believe is finished. In the last letter which he wrote to me, speaking of those articles, he said : "I shall not enter into polemics with the Berlin school, but my doctrine is so much opposed to theirs that it will come to the same thing."

How far he carried his work we do not know. It is probably not finished, and it may be feared that we have lost one of those masterpieces which effect a complete change in many points of view and which introduce research into new fields.

MASPERO's view on mythology and religion are to be found chiefly in numerous articles in the *Revue de l'Histoire des Religions*. Most of them have been republished in

the collection of his works which is part of the *Bibliothèque égyptologique*.<sup>7</sup> They are for the most part reviews of books bearing on Egyptian religion. Here also MASPERO had ideas which are the result of a thorough knowledge of religious texts, and which the study of such writings as the Book of the Dead forces upon one's mind. There was not one Egyptian faith; especially there was no fixed religious system. It varied according to localities and to time. The faith of Heliopolis is not that of Abydos, and the origins of the gods are not the same. Besides, one can trace in those books remains of obsolete ceremonies or customs, old fetishism, and much magic. Here also the names under which religions are classified cannot be applied; and we have to study the faith of the Egyptians as a thing apart.

In art, MASPERO distinguished various schools, especially the curious productions of the time of Amenophis IV, which he attributed to Heracleopolis; he also broke with the idea, which is still too prevalent, that art runs parallel to the time and is intimately connected with a definite date.

His greatest work is his *Histoire ancienne des peuples de l'Orient classique* (in three volumes 1895-1899). He had first published a handbook covering the same field. But here we have a complete picture of what the life of these nations was from their origin to the conquest of Persia by Alexander. It shows the result of the great change which has taken place in our views as to antiquity. Fifty years ago the nations were divided into Greeks, Barbarians, and Hebrews. Besides this, these nations were considered as absolutely separated from each other. Each one had its own political limits and its own customs, and had hardly anything in common with the rest. The discovery of prehistoric antiquity and of primitive civilisation considerably contributed to shatter this idea, proving that these primitive people already possessed extensive trade relations even with distant countries. Afterwards the great archaeological discoveries, chiefly in Mesopotamia, revealed how nations have been influenced by others, and not necessarily through war or invasion. Egypt, owing to its special nature and the few points from which it is accessible, was more isolated than the nations of Western Asia; besides, it is probably in Egypt that we find the oldest monuments. MASPERO therefore began with Egypt, and the origin of the Egyptian empire. He intended to rewrite the Egyptian part of the first volume, which has been much altered owing to the discovery, made chiefly at Abydos, of the Kings of the first three Dynasties. Already in the first volume he passes to Chaldaea and to the earliest Sumerian civilisation, and afterwards, parallel with the history of Egypt, he describes the empires of Assyria and of Persia and the events which took place in Palestine. Having in his youth studied cuneiform, he could speak of those empires of Western Asia not exactly as an expert, but with a certain knowledge of the texts which were not to him, as to many historians, a sealed book. Evidently with the progress of science many of his statements will be contested; but it will be long before another scholar attempts so vast a work, which would have filled another man's life, and could be accomplished in five or six years only owing to the extraordinary capacity for labour given to its author.

Egyptology will long mourn the death of MASPERO, the chief of the French school, the worthy successor of CHAMPOUILLON and DE ROUGÉ, whose authority was recognized far beyond the frontiers of France, and who was the last representative of the heroic age of Egyptology, the age of the great conquests in Egyptian science.

## THE PHARAOH'S PLACENTA AND THE MOON-GOD KHONS

BY AYLEDWARD M. BLACKMAN, M.A.

In the last number of the *J.E.A.*, pp. 199—206, when pointing out the resemblance between the object on the head of a goddess in the famous birth-scene at Deir el-Bahri, and the *Mulongo* of the king of Uganda, I referred several times to an article by Miss MURRAY and Dr SELIGMAN (*Man*, 1911, No. 97), in which they show that the beliefs and practices of the Baganda with regard to their king's placenta are remarkably paralleled among the Ancient Egyptians. I hope that this article of mine, which was suggested by certain statements of Professor SETHE in his contribution to BORCHARDT's *Das Grabdenkmal des Königs Sahu-re*, II, p. 77, will still further confirm Miss MURRAY and Dr SELIGMAN's theory.

While SETHE accepts their conclusions with regard to what the emblem  represents, viz. the Pharaoh's placenta, he differs from them entirely in his transliteration and translation of the oft-accompanying name. This name (see MURRAY-SEЛИGMAN, *op. cit.* pp. 167—169, 171), which one would expect to mean "placenta of the king" or the like, is variously written  $\alpha$   ,  $\beta$    $\sigma$ ,  $\gamma$   ,  $\delta$    ,  $\epsilon$    , and  $\zeta$   . MURRAY-SE利GMAN transliterate  $\alpha$ ,  $\beta$  and  $\gamma$  *hnu-stn*,  $\delta$  and  $\epsilon$  *hnu-n-stn*, and render them by "the *khenu* (or 'inside thing') of the king"—i.e. "the placenta of the king." They do not transliterate  $\zeta$  but translate it "the Royal Child."

Though, as we shall see, *hnu-stn* and *hnu-n-stn* are incorrect transliterations, Miss MURRAY and Dr SELIGMAN are clearly right in recognising that forms  $\alpha$ — $\epsilon$  are mere variations in the spelling of one and the same name. Their article was written before SETHE published his article *Das Wort für König von Oberägypten* in *A.Z.*, 49, pp. 15—34, in which he proves, almost beyond a doubt, that  reads *n-sw-t* (*ny-sw-t*) not *stn*, and that  (var.  ) *nsw* is an abbreviated form of the same word<sup>1</sup>. Our difficulties, caused by the apparent discrepancies in the writings of the name of the -emblem, are thus completely removed. We recognise at once in

<sup>1</sup> Why "inside thing of the king" should mean "the king's placenta" they do not attempt to explain.

<sup>2</sup> For further and conclusive evidence see LACAU, *Rec. Trav.*, XXXV, p. 228, SPIEGELBERG, *A.Z.*, 50, pp. 124—5, BLACKMAN-GARDINER, *Rec. Trav.*, XXXVII, IV, 1—2.

the forms  $\alpha-\epsilon$  the word  $n-sw-t$  or  $nsw^1$  "king," while it seems pretty clear from  $\gamma$  that the first element in the name is not  $hnu$  or  $hnu-n$ , but merely  $\odot h-$  and  $\text{---}$  being debased (or perhaps semi-sportive) writings of the simple  $\odot \sigma \rho \alpha$ .  $\odot \text{---}$ ,  $\text{---}$ ,  $h-n-s(w)t$ ,  $h-nsw$ ,  $hns^2$ . The name for the  $\text{---}$ -standard, therefore, is "the  $h$  of the King."

Can it be that in  $\odot h$  we possess the ancient Egyptian word for placenta (in the construct form)?

GRIFFITH (*Hieroglyphs*, p. 46-7; see also DAVIES-GRIFFITH, *Ptahhetep*, I, p. 32) inclines to the view that  $\odot$  represents a ball. But there is no known word for ball from which, on the principle of acrophony,  $\odot$  could get its alphabetic value  $h$ . GRIFFITH can only suggest that there may be some connection between the postulated word for "ball"<sup>3</sup> and  $h\dot{h}i$  "toss up,"  $hh$  "run swiftly."

According to SETHE (*ap. BORCHARDT, op. cit.*, p. 77) the sign represents, not a ball, but a placenta "Mutterkuchen"; he accordingly translates  $h-n-sw-t$ ,  $h-nsw$ , "Königsnachgeburt," "king's afterbirth."

In view of the belief of the Baganda that the afterbirth is a second child born dead, whose ghost is intimately connected with the welfare of the actual, or living, child, this theory of SETHE's admirably suits the strange writing of form  $\zeta$ . It, like all the other variants, must read  $h-n-sw-t$  or  $h-nsw$ ,  $\text{---}$ , which reads  $hn$  (the  $\alpha$  at this time is valueless), fulfils the same function as  $\text{---}$  and  $\text{---}$  in forms  $\delta$ ,  $\epsilon$ , while the child  $\text{---}$ , seeing that it wears the crown of Upper Egypt, must read  $n-sw-t$  or  $nsw^2$ . Thus  $\text{---}$  acts the part of a word-sign ( $n-sw-t$ ,  $nsw$ ), and at the same time serves as a determinative of the general sense of the compound,—the afterbirth, as we have just remarked, being conceived of as a second child.

<sup>1</sup> In form  $\gamma$  the final  $w$  in  $nsw$  is wanting, as in  $htp-d-as$ , the demotic version of  $htp dy ny-iwt$  (GRIFFITH *ap. PETRIE, Deiderek*, p. 54).

<sup>2</sup>  $\text{---}$  reads  $hs$  and represents the  $\odot hs$  in forms  $\alpha$ ,  $B$ ,  $\gamma$ . A substitution of  $A$  for  $h$  is not surprising in the late period (see JUNKER, *Grammatik der Deuteronomist*, § 30), to which this example of the word belongs. Instances of this interchange are, indeed, found as early as the XIIth Dynasty (see BLACKMAN, *Rock Tombs of Meir*, II, p. 24, n. 6, p. 34, n. 3).

<sup>3</sup> With the form  $\text{---} hns$ , which is very late (see DR. MORGAN, *Kom Ombo*, p. 342), compare the Coptic *gionc* and Greek *χωρ*. As we shall see,  $\odot \text{---} \text{---} \text{---}$   $hns$ , the Moon-god Khons, is apparently the Pharaoh's placenta in the guise of a young prince.

<sup>4</sup> Something like *ht-t(l)*; cf. *dt* "snake," *ht* "body," producing of  $h$ .

<sup>5</sup> It is worth pointing out that the beliefs and customs of the Ancient Egyptians with regard to the Pharaoh's placenta, dealt with in this and my previous article, evidently originated in Upper, not Lower, Egypt, for  $n-sw-t$ ,  $nsw$  (king of Upper Egypt), not *bity* (king of Lower Egypt), is used in this compound. It is significant that the Proto-Egyptians of the *Sand* were connected both racially and commercially with the Hamitic peoples in the south (see for example ELLIOT-SMITH, *The Ancient Egyptians*, p. 63 ff.).

What can be adduced in support of SETHE's view, which is also my own, that ☩ represents a placenta?

The sign as given in DAVIES-GRIFFITH, *Ptahhetep*, I, Pl. XIV, is not very unlike the drawings of fresh placentas reproduced on p. 170 of Miss MURRAY and Dr SELIGMAN's article. In the earliest examples (PETRIE, *Medium*, Pls. XI, XIII, XXIII, *et passim*) the colour is yellow. We might compare, perhaps, the brown colouring of ☩ in the papyrus of Nesinekht-tawi (MURRAY-SELIGMAN, *op. cit.*, p. 170)! Upon the yellow ground are frequently black or red horizontal lines, as in the printed type (◎). Do these lines represent veins?

From the point of view of shape (and perhaps also colour) ☩ might well be a conventional representation of a placenta.

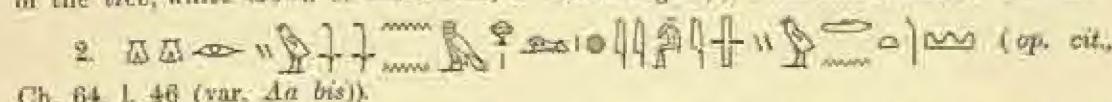
Now for the philological side of the question.

As we have already seen, there appears to be no word meaning "ball" from which ☩ could derive its alphabetic value *ḥ*. But there is a word ☩, which, as its determinative shows, must either be a word for "child," "babe," or for some object, person, or action, that has to do with "child." In certain late texts (Ptolemaic and Graeco-Roman) ☩, which, in view of the variant ☩, is to be read *hy*, unquestionably means "child." Thus, for example, in MÖLLER, *Die beiden Totenpapyrus Rhind*, I, 7h, 4, Osiris is called ☩ "The noble child of the Divine Pair," where, in the parallel demotic version, *ḥrd*, the ordinary word for "child," is substituted. ☩ also occurs several times with this meaning in *The Festival Song of Isis and Nephthys* (see BUDGE, *Egyptian Reading-Book*, pp. 51, 53, 57, 58, 62, 63).

Despite a long search I have discovered no instances of ☩ = "child," "babe" occurring outside Ptolemaic and Graeco-Roman texts, except two very doubtful ones<sup>1</sup> in the *Book of the Dead*. They are:—



"Repelling the knife in Herakleopolis Magna (*Nn-ny-sw-t, qmnc*) by so and so. O land of the tree, white crown of the statue, O standard-god(?), I am the child(?): 4 times."



This passage seems to be hopelessly corrupt, but the last words might be translated "the child(?) who is in *Wdwt*."

<sup>1</sup> ☩ = *Σέρπανος θεός*; see BRUNSCHE, *Wörterb.*, Suppl., pp. 993-4 and also MÖLLER's own note, *op. cit.*, p. 87 (121).

\* A word ☩ occurs in Ch. 80, l. 15 (Ed. NAVILLE) but it certainly does not seem to mean "babe."

If  $\text{ḥ}$  (*ḥay*) means "child," the name of our standard must be "Child of the King." It is true that the placenta was regarded by the Baganda as a child, but it was the real child's twin (*Mulongo*). If the Ancient Egyptians held beliefs similar to the Baganda on this point,—and we have good reasons for believing this to be the case—then we should expect the name of this standard to be not "Child of the King," but "Twin" or "Brother of the King."

But is "child" the original meaning of  $\text{ḥ}$ ? If so we are no nearer to discovering how  $\text{ḥ}$ , which must originally have been a pictogram, or word-sign, like  $\text{---}$  or  $\text{~}$ , got its alphabetic value  $\text{ḥ}$ .

As a matter of fact the word  $\text{ḥ}$ , of which  $\text{ḥ}$ ,  $\text{ḥ}$ ,  $\text{ḥ}$ ,  $\text{ḥ}$ ,  $\text{ḥ}$  are variant forms, occurs not only in late texts, but in those of the Middle and New Kingdom also, in combinations which make, as we shall see, the translation "child" impossible.

As was shown in my previous article (*J.E.A.*, III, p. 205), the Baganda believed that the ghost of his placenta or "twin" (*Mulongo*) was so closely linked with the living individual that, if an unauthorised person partook of the fruit of the plantain beneath which a placenta was buried, its ghost was taken from the clan to which it and its living twin belonged, and the latter would die in order to follow his twin ghost. Again to enable the dead king to become a perfect and complete divinity able to give oracles, it was necessary that the two ghosts, his own (attached to his jaw-bone), and that of his placenta (attached to the stump of his umbilical cord), should be brought together. Thus the ghost of the king's placenta, though external to his physical being, formed practically a part of his personality. The taking away of this ghost during a man's lifetime meant death to him, and the absence of it after death meant an incomplete existence, if not absolute non-existence.

The ruling caste in Uganda that held these beliefs is, as I pointed out in my last article (*J.E.A.*, III, p. 206), of Hamitic origin, and therefore akin to the Egyptians, and I suggested at the same time that these beliefs form part of the stock of religious conceptions common to all the North African Hamites. It is held by some authorities that there are certain racial as well as cultural affinities between the Proto-Egyptians and the early inhabitants of Mesopotamia<sup>1</sup>. The idea of a spirit, or protecting genius, attached to each individual and at the same time inextricably bound up with his personality, existed in a highly developed form among the Sumerians and Babylonians. To illustrate this, I here reproduce a very interesting statement on the subject most kindly furnished me by Dr LANGDON.

<sup>1</sup> The writing  $\text{ḥ}$ , which occurs in a *Totentext* belonging to the first half of the XVIIIth Dynasty (*Papyrus of Nu*, Ch. 64, l. 19), suggests that  $\text{ḥ}$  is here used as a word-sign (see ERMAN, *Gramm.*, § 53).

<sup>2</sup>  $\text{ḥ}$  *bw* is the writing of the word in the earliest Middle Kingdom example I know of (BLACKMAN, *Rock Tombs of Meir*, II, Pl. XV). For the change of *w* to *y* see ERMAN, *op. cit.* §§ 99, 100, 180; JONSEK, *Grammatik der Denderatexte*, § 13, 5.

<sup>3</sup> See ELLIOT-SAINTE, *The Ancient Egyptians*, p. 138 ff.; EDUARD MEYER, *Geschichte des Altertums*, § 200.

"The fundamental concept of personality in Sumerian and Babylonian religion is a sort of dualism, a person and a super-person. 'A man and his god' form a unity which under normal conditions always exists.

Thus in passage I, an incantation against the seven devils, the text runs:—

I. 'The god of a man is a shepherd who seeks pasture for the man.'

But from his god they (the devils) seized him away for food.' C.T. 16, 12, 44-6.  
Another passage identifies the 'god of a man' with the man's soul.

II. 'The suffering man they rushed upon like a storm, filling him with sickness.  
That man was torn from his soul.' C.T. 16, 24, 10-13.

One of the seven devils is addressed as follows:—

III. 'O wicked *Utuukku* that dwellest in the house, in thy sparing not the god of  
the man.' C.T. 16, 32, 167.

In later times a man was supposed to have a double super-soul, i.e. a male and a female deity. Thus we have repeatedly in the prayers of the magic cults:—

IV. 'I some one the son of his god, whose god is some one, whose goddess is  
some one, stand before thy divinity.'

A very remarkable incantation is:—

V. 'When they (the devils) came into the house for evil, the god of the house  
and the goddess of the house were humiliated. The protecting genius  
(an animal-image of some deity) of the house fled into secrecy.' K. 5179  
in C.T. 16, 39.

It is obvious that the super-soul of man was not regarded as one of the great gods, although each person was attached to the local cult of one of these great deities, and in his prayers addresses them as 'my god.' The incantations and prayers usually end with the appeal to be restored to the 'kindly hands of my god.' This means that the man's divine genius may return to his body.

Thus one of the great incantations ends with a command to the god Marduk:—

VI. 'Into the hands of Shamash (the sun-god), chieftain of the gods, give him  
(the sinner).

And may Shamash restore him to the kind hands of his god in security.'  
C.T. 16, 11, 38-42.

A sinner is always called 'the son of his god.' This, whatever its origin may be, means in practice 'the *protégé* of his genius.'

VII. When a man is in the power of witches, etc., the texts say:—

'His god is filled with woe.' C.T. 17, 10, 70.

Or we read:—

VIII. 'They have caused my god and my goddess to wail for me.' *Mahlu*, 1, 6.

Hence a man in the power of the devils is deserted by his god.

IX. 'His god from him is far away.

His goddess is absent from his body.' C.T. 17, 29, 25-8.

Finally the classic passage is:—

X. 'His god has departed from his body,

His sympathetic goddess has retreated aside.' *Shurpu*, v, 9—14.

I know of no references to the actual conquest of a genius by a devil. The situation is rather the retreat and flight of a genius who returns after the ritual of atonement."

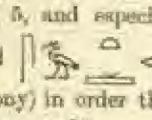
These passages from Babylonian and Sumerian texts plainly show that the existence of a man and his "god," or protecting spirit<sup>1</sup>, were inextricably bound together. The god, Dr LANGDON tells me (we see this also in passages IX, X), was supposed to be actually resident in the person's body. If the god (or god and goddess) was chased out of a man, the devils (of sickness) had no difficulty in entering into, and taking possession of, him. Sickness meant that the protecting god (or god and goddess) had been driven out and was far from the invalid's (his son's) body. The "god," Dr LANGDON also informs me, was, it would appear, the element in the human being that survived death and continued to exist in Hades—in other words a man's "god" was what we should call his "soul."

Thus in two extremes of culture, the one (that of the Sumerians and Babylonians) highly developed, the other (that of the Baganda) semi-savage, the idea prevailed of a spirit closely linked with the existence of every person whether alive or dead. Though conceived of in Babylonia as actually dwelling in the body of the living person, who was the "god's" son, it was yet spoken of as something apart from him. Similarly an Egyptian literary composition of the XIIth Dynasty represents a man as holding a conversation with his *bai*<sup>2</sup> (*bi*), as though it were an entity distinct from himself; and yet at death a man was supposed to become a *bai* or *ikh* (*iSh*); and, from the earliest times, ceremonies were performed and formulae repeated to ensure the deceased becoming one<sup>3</sup>.

Dr LANGDON is inclined to think with me that in the beliefs of the Baganda, and the postulated beliefs of the Proto-Egyptians, concerning the placenta, we have the origin perhaps of the protecting genius or in-dwelling "god" of the Sumerians and Babylonians; but he believes that no trace survives in the Sumero-Babylonian literature of the very primitive notion that the placenta is a second child (the first stage, one would imagine, in the development of the belief in a *Schutzgeist*). The Tigris-valley dwellers had reached such a high level of culture at the time from which even the oldest surviving religious literature dates, and their theory about the protecting god was by then so far developed, that its fantastic origin had probably long ago passed into oblivion.

<sup>1</sup> From passages IV, V, VIII—X, we see that the protecting genius had a female counterpart; of the *bt* and *btas* of the Egyptians (see GARDNER, *P.S.B.A.*, XXVII, p. 259). In a subsequent paper I hope to show that the Egyptian conception of a *bt* (or *Schutzgeist*) originated in the belief that the placenta was a second child.

<sup>2</sup> See ERMAX, *Gespräch eines Lebemanns mit seiner Seele*, pp. 17-8 ff. Dr A. H. GARDNER has pointed out to me that *bt* is the reading here, not *ith* (as ERMAX, loc. cit., suggests), and refers to MÜLLER, *Palaeographia*, I, 299.

<sup>3</sup> See for example BREASTED, *Development of Religion and Thought in Ancient Egypt*, pp. 59—61, L, D., n, 5, and especially L, D., II, 71 c, where the action of the officiating lector (§ 11) is labelled ||  — "Spiritualizing (i.e. reciting the formulas prescribed for the ceremony) in order that he (the deceased) may become a spirit." See also BLACKMAN, *Rock Tombs of Meir*, III, p. 29.

On the analogy of the beliefs entertained by the Hamitic ruling caste in Uganda, the placenta, or rather its ghost, would have been supposed by the Ancient Egyptians to be closely connected with the individual's personality, as we have seen was also the case with the "god" (or "god and goddess") of the Babylonians. Deprived of this ghost the individual was a sorry thing possessing no initiative or power to resist external influences. Without his "god" the Sumerian fell a prey to devils; similarly, if robbed of his "twin's" ghost, the Baganda baby died, and the Baganda king-god was imperfect and unable to give oracles<sup>1</sup>.

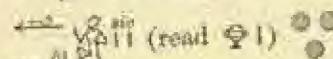
Thus while in one aspect the placenta-ghost is a protecting genius, in the other it is the force that controls and suggests a man's thoughts and actions<sup>2</sup>. In short, in this latter aspect it is his personality<sup>3</sup>.

If the original meaning of *hw*, *hy*, is "placenta," we now have (seeing that its ghost is in one aspect intimately connected with the welfare of its living twin and in the other is that twin's personality) the explanation for the various meanings, which, as the contexts show, must be assigned to that word in texts both of the Middle and New Kingdoms and of the late period.

These uses of *hw* and its variants (apart from the late value "child") are well illustrated by the following passages:—

1.  BLACKMAN, *Rock Tombs of Meir*, II, p. 2.

Pl. XV; XIIth Dynasty, temp. Sesostris I. "Baron, nomarch, unique personality, without a rival." This and No. 4 are, so far as I am aware, the earliest known instances of *hw* occurring in inscriptions of the Middle Kingdom.

2.  Pap. Leiden, 344 verso, 3, 6.

As SETHE (*op. BORCHARDT, loc. cit.*; *A.Z.*, 45, p. 65) thinks, the meaning of *hr hw* must be something like "in (von) meiner (deinor, seiner) Art," "in (of) my (thy, his) nature (character)." We can therefore translate this sentence, "Unique in his nature (or 'personality'), there exists not the like of him."

3.  Urk., IV, 942; XVIIIth Dynasty.

temp. Tethmosis III. "Re, lord of Eternity, unique in his nature, ruler of Everlastingness....there exists not his peer."

<sup>1</sup> As I pointed out in my last article (*J.E.I.*, III, p. 205), it was probably owing to these beliefs about the placenta and its ghost that Horus fought Seth in order to recover the stolen umbilical cord of Osiris.

<sup>2</sup> This is well illustrated by the belief of the Baganda that, unless united with his "twin's" ghost, the dead king was an imperfect deity,—i.e. his directing intelligence was impaired or lacking.

<sup>3</sup> So the *hw* (which, as I hope to show in another article, is intimately connected with the theory that the placenta is a second child) is on the one hand a protecting genius, distinct from its protégé (see BREASTED, *Development of Religion and Thought in Ancient Egypt*, pp. 52-5), and on the other means nothing more than "personality," "character," "nature" (see GARDNER, *P.S.B.A.*, XXXVII, p. 237, n. 3).

<sup>4</sup> That *hw* "placenta" should stand for (a) "placenta-ghost," (b) "personality," presents no difficulty, for the primitive mind does not clearly distinguish between the spirit and the object in which the spirit manifests itself. Thus among the Baganda the word *Mulongo* "twin" seems to stand equally for the ghost of the "twin" and for the material object to which the ghost was attached.

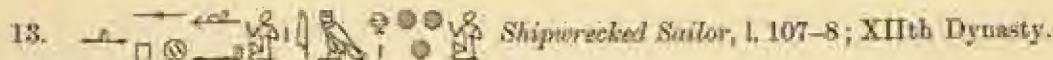
<sup>5</sup> See immediately above and footnote 3.

4. GRIFFITH, *Sist.*, Pl. 4, l. 214-5; XIIth Dynasty, temp. Sesostris I. "Unique in nature to him who is in the Palace (i.e. Pharaoh)."
5. NEWBERRY, *Beni Hasan*, 1, Pl. XXVI, l. 154-5; XIIth Dynasty, temp. Sesostris III. "Sole friend, there exists not one who is of his nature." Here "of his nature" means nothing more than "like him" (i.e. no one was as intimate with the king as he was), indeed "like" seems to be the meaning of *hr bw-* in practically every case in which it is preceded by a negative, e.g. in:-
6. ROCHEMONTEIX, *Edfou*, 1, 228. "There is not one who is like him."
7. L. D., IV, 76 a. "Quite unique, there is not one who is like him."
8. Pap. Berlin, 3049, 4, 3. "There is not another like him."
9. BRUGSEN, *Wörterb.*, Suppl., p. 901. "There is not another like her."
10. Ibid. "There is not one who is like this god."
11. Ibid. "There is not another like (him) in name!"
12. Stele of Ikhernofret, l. 9=SCHÄFER, *Mysterien des Osiris*, p. 14; XIIth Dynasty, temp. Sesostris III. "My majesty knows that there is no one who will do it like thee."

<sup>1</sup> Cf. Newberry, *El-Bersuk* 1, Pl. VI; XIIth Dynasty, temp. Amenemhet II—Sesostris III. On the analogy of nos. 1 and 4 must be an abbreviation of *bw w'*,—the initial *w* of *w'* being assimilated to the immediately preceding *w* in *bw w'*. If so, may not the frequent O.K. title really read *bw w'*?

<sup>2</sup> Since the placenta was the "twin" of the child, its ghost would naturally be regarded as the child's spiritual counterpart. Hence the idea of "likeness," "similarity," is inherent in the word *bw*.

<sup>3</sup> Or perhaps "nature," "character," i.e. *wn* is here used in place of *bw*, as not uncommonly in Graeco-Roman texts (e.g. Möller, *Die beiden Totenpapyrius Rhind*, 1, IV, 2 and 6, vi, 12, vii, 10, ix, 10).



"There survived not one of them besides myself."

As GARDINER, *A.Z.*, 45, p. 65, points out, we have in passage 12 the connecting link between the ordinary meaning of *hr hw-* preceded by a negative and that of "besides," which it must possess in this instance. We might compare, he suggests, the Egyptian *hr hc-*<sup>1</sup> with our "as well as," which can mean both "like" and "besides."



"I am the ruler of the throne, the opener of births on this day, there exists not my like."<sup>2</sup>

Here *hy* means just "similitude," "likeness," as it does, in a somewhat modified sense, in the following passages:—



"As thou art, so is he who came forth from my body."



"As the son, so is he who fashioned him."<sup>3</sup>



"As thou art, so is the son of Osiris."<sup>4</sup>

Finally *hy* is weakened to a mere particle, as in the following passage:—



"And so the matter ended."

All these meanings of *hw* and its variants are secondary and worn down, though we can see how they arose.

But does *hw* ever occur in its original signification of "placenta"? It seems to do so in the list of titles of Khu-en-ukh, a VIth Dynasty priest, whose tomb-chapel is at Kuṣeir El-Amarna (see BLACKMAN, *Rock Tombs of Meir*, I, p. 8). Among other posts this person held those of



<sup>1</sup> In both 12 and 13 *hr* may be used in the sense of "in addition to" (EHRMAN, *Gramm.*, § 457 b). Then *hr hw-k*, *hr hw-l*, would mean "in addition to thy, my, personality," i.e. thyself, myself. With this use of *hw* cf. the English use of "soul" in such an expression as "Out of a crew of twenty I was the only surviving soul."

<sup>2</sup> See above, p. 242, footnote 2.

<sup>3</sup> Cf. our "Like father, like son." In English we should reverse the order in the other cases also and should say "As is one who came forth from my body, so art thou," "As is the son of Osiris, so art thou."

<sup>4</sup> From my own copy of the inscription. It has been published by QUIBELL, *Annals de Service* III, p. 258.

"Priest of Hike<sup>1</sup>, Priest of the Red Crown, Servant of the Souls of Pe, Servant of the Souls of El-Kab, Priest of the Two *H* of Horus, Over the Mysteries of the Good God (i.e. the Pharaoh)."

In a string of titles, all of which are intimately connected with the kingship, Horus must mean the king, and  can only be the word *hw*, *hy*, we have been discussing. "Priest of the Two Personalities (or 'likenesses') of Horus" sounds most unlikely, and so does "Priest of the Two Children of Horus." We know nothing about a cult of the Pharaoh's two eldest<sup>(1)</sup> children, and the god Horus had four, not two, sons. Does  therefore mean "placenta," in the literal sense of the word? The objection to this interpretation is the duplication of . But this difficulty is not as serious as it appears at first sight; for, as stated in *J.E.A.*, III, p. 200, two models of a placenta were found in the tomb of Harmhab. There are two explanations for this duplication.

1. The Pharaoh was assigned ceremonially two placentae (one, of course, a model) because as ruler of Upper and Lower Egypt he impersonated two gods, Horus and Seth<sup>2</sup>.

2. One  is the placenta and the other the stump of the umbilical cord. If, as we have some reason for supposing, both these relics were preserved by the Egyptians, the ghost would be supposed to attach itself to either. Since the stump of the umbilical cord, as we learn from the beliefs of the Baganda, was the substitute for the placenta, both these relics might equally well have been called ; indeed the Baganda actually speak of the preserved umbilical cord-stump as though it were a placenta (see *J.E.A.*, III, p. 199). It is not improbable, therefore, that the title    means "Priest of the Two Placentae of Horus (i.e. the king)."

It is possible that  also occurs in its (postulated) original meaning "placenta" in a very common title. Instead of reading   as *rh-ny-sw-t*, and translating it "King's Acquaintance," SETHE (ap. BORCHARDT, *Grabdenkmal des Königs Sahu-re*, II, p. 77) would read it *iry h-ny-sw-t* and translate "Guardian of the King's Placenta."<sup>3</sup> In support of this view he quotes the writing  in the feminine form of the title, which occurs once in *Berlin Mus.* 7969 (SCHÄFER, I, 35). He compares this with   *imy-t-rt* (fem. form of   *imy-rt*), which occasionally replaces the usual   . Further support of SETHE's reading and rendering is supplied by DAVIES, *Deir el-Gebrudi*, II, Pls. XVII, XVIII. In both instances *Hm-rt* the wife of *Ist* is

<sup>1</sup> In his capacity of priest of the Red Crown Khu-en-ukh was naturally connected with magic. For the magical properties of the Pharaonic diadems see EMMAN, *Hymnen an das Diadem der Pharaonen*, pp. 24 (2, 1—2), 35 (9, 1); PYR. 1832; SETHE, *Zur Sage vom Sonnenauge*, p. 12.

<sup>2</sup> He might have possessed these two placentae merely owing to his being two kings in one, the twofold character of the realm never being lost sight of at any period.

<sup>3</sup> SETHE seems to think, however, that in comparatively early times it came to mean no more than "Belonging to the king's family," "Der zum Königstamm oder zur Königssippe gehörige."

entitled  *iry t h-n-swt*. Here out of respect the  precedes  *iry-t*, and  "placenta" is, in its turn, for the same reason, preceded by  *ny-swt*. I know of one instance of this arrangement in the case of the masculine form of the title, i.e.  *iry h-n-swt* (BLACKMAN, *Rock Tombs of Meir*, II, Pl. X).

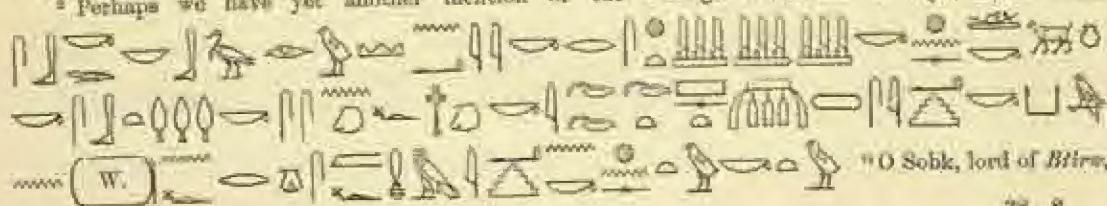
In an Old Kingdom inscription (temp. Snefru) there is yet another possible reference to the cult of the Pharaoh's placenta, viz. in the tomb-chapel of Methen. In one scene (L. D. II, 3) Methen, in front of whom two priests are performing funerary ceremonies, is entitled 

"Director of the Temple of the *h-n-swt*(?) (King's Placenta?) of Snefru, regulator of the priests, keeper of the king's afterbirth (?)." The sign  as reproduced in L. D. loc. cit., and in *Agyptische Inschriften aus den Königlichen Museen zu Berlin*, I, p. 85, looks very like the placenta-standard. It may, however, be the somewhat similarly shaped emblem that reads *dwt* (see J.E.A., III, p. 199, n. 1), with which, as VON BISSING (*Die Reliefs vom Sonnenheiligtum des Rathures*, p. 10) points out, our standard must not be confounded<sup>1</sup>. This point, unfortunately, can never be cleared up, as the sign in question, along with most of the others, has now completely disappeared.

Though we have no text that definitely fixes the meaning of  and its variants as the well-known passage in the Papyrus Westcar (quoted J.E.A., III, p. 203) does that of  *djed*, we are on the whole fairly justified in coming to the conclusion that the primary meaning of  is "placenta," and that it occurs in that sense in the above quoted VIth Dynasty list of titles as well as in the name of the -standard<sup>2</sup>.

<sup>1</sup> That the name of this emblem is *dwt* cannot be disputed in view of Pyr. §§ 1165 a, 994 c. There is another emblem , the royal chin-beard (SIRK ap. BONCHARDT, op. cit., pp. 97-8), that reads *dwt*, the symbol of the toilet-god of that name (see Pyr. §§ 631 a, 1428, 2042 a, 1329 c, MAR. Mast., p. 366). Seeing that  and  both have the same name, there may be some connection between them; GARNETT has suggested to me that , which, as VON BISSING remarks (loc. cit.), looks like a sack, is the toilet-god's symbol placed in a bag and set upon a perch, the regular support for divine emblems. There seems to be little doubt that the object upon the perch is the not uncommon O.K. title  is the *dwt*, not the *djed*-symbol; unfortunately the only actual facsimiles of the sign, so far as I know, that have been published (DAVIES, *Der el-Gebrusi*, I, Pla. III, VIII, XVIII, id. II, Pla. XIII, XVIII), are damaged.

<sup>2</sup> Perhaps we have yet another mention of the "King's Placenta" in Pyr. 450 a-e—



"O Sobk, lord of Bire,

The determinative  is due to the belief that the placenta is a second child, the "twin" (*Mulongo*) of the real child. As I have pointed out, the only certain instances of  being used in the sense of child, are in texts of the Graeco-Roman age. The compilers of religious texts in that late period found great pleasure in the use of antiquated and rare words. By that time the primitive notion about the nature of the placenta had very possibly been lost sight of, anyhow somewhat obscured. Thus, misled by the determinative, the archaizing scribes took  to be merely an old and unusual word for "child."

We now come to the subject from which this article partially derives its title,—the origin of the moon-god Khons.

The commonest spelling of the god's name is    *hnsw*. That we recognise at once as being also a way of writing the name of the Pharaoh's placenta, and it was as this, I venture to suggest, that our moon-god commenced his career. The earliest forms of his name that I know of, are:—

1.  in the proper name    *Hsy-hnsw* Beloved of Khons (HOFFMANN, *Theophoren Personennamen des älteren Ägyptens*, p. 49 = SETHE, *Untersuchungen*, VII, 1); temp. Old Kingdom.
2.   in the proper name   "Ptah-and-Khons" (In., *op. cit.*, p. 67); temp. Middle Kingdom.
3.   (ERMAN, *Gespräch eines Lebensmüden mit seiner Seele*, p. 27); temp. Middle Kingdom.

It is improbable that we are to recognise the name of this god in *Pyr.* 402 *a* (see ERMAN, *Chrestomathie*, II, p. 28, s; In., *Handbook of Egyptian Religion* [English Translation], p. 91; BREASTED, *Development of Religion and Thought in Ancient Egypt*, p. 127), though, since Khons was identified with Thoth<sup>1</sup>, we may possibly have a punning allusion to his name in *Pyr.* 130 *d*:—          

                        From this word *hns* most authorities have held that the name Khons is derived, Khons, according to them, meaning the "Traveller" (ERMAN, *Handbook of Egyptian Religion*, p. 12; BRÜOSCH, *Religion und Mythologie*, p. 259). This idea, though not very convincing, seemed to be supported by the spelling of the word

where thou journeyest to thy meadows, when thouarest within (the shadow of) thy *ibb*-grove, and thy nose smelleth the sweet savour of the Vintage-god, do thou cause the *ib* of Unas to mount up for him to his side, even as this thy *hsawet* did mount up for thee." *hsawet* here, however, is feminine. It is difficult, despite its association with *ib*, to identify it with the word we are discussing. At such an early period it seems almost incredible that the original meaning of the two elements in the compound could have become so obscured that the whole was treated as a feminine owing to the ending *-et*. But see my remarks on pp. 248-9.

<sup>1</sup> The earliest instance, however, of this identification, so far as I can ascertain, is the one already quoted from the *Lebenstailler*.

in the oldest example quoted, i.e.  , in which —  , not  , forms the last syllable. But since we now know beyond a doubt<sup>1</sup> that even in the *Pyramid Texts*,  *ny-sw:t* can be written  *nsse* (*Pyr.* 814 c), what would have seemed a very formidable objection to my theory disappears.

Do the forms in which Khons is depicted in the temple reliefs also support this somewhat startling suggestion?

He is generally represented in one of the two following guises:

1. He has an ordinary human body, but a hawk's head, which is surmounted, as is often that of Thoth by the moon's disk within a crescent (Fig. 1).



Fig. 1.



Fig. 2.

2. He is depicted as a young prince (Fig. 2), in which case he wears the sidelock of hair and carries the usual insignia of royalty, the whip and crook<sup>2</sup>; he is clothed in the antiquated royal apparel<sup>3</sup>, which was, however, still worn by the Pharaoh of the historic periods in accordance with tradition, at the *Ad-festival*<sup>4</sup>; round his neck is a *mlt*-necklace, the weighted pendant of which hangs down his back<sup>5</sup>.

The latter is the god's most characteristic form, and thus he is figured in the earliest existing representations of him (e.g. L. D., III, 15, 18).

With regard to his position in the pantheon.

He is the son of Amon and Mut, and with them formed the Theban triad; Thebes indeed seems to have been his original home, and here a great temple, named

<sup>1</sup> See BLACKMAN-GARDNER, *Rec. Trav.*, XXXVIII, liv. 1-2.

<sup>2</sup> For the  and  , see KERN, *Ogyptiana*, p. 13.

<sup>3</sup> See von BRAUN, *Die Reliefs vom Sonnenheiligtum des Rätheren*, p. 15, who rightly points out that it is in his capacity of *king*, not of a *dead god*, that Osiris (and other gods as well) wears this attire and carries these emblems.

<sup>4</sup> See, for example, L. D., III, 36 a, 49 a, 74 d.

<sup>5</sup> Cf. the broad collar with pendant tassel worn by Osiris (e.g. MURRAY, *Osireion*, Pl. VIII), and by the king in *Ad*-festival array (L. D., III, 36 a, 74 d).

"House of Khons-in-Thebes Nefer-hotp" (CHAMPOILLION, *Notices descriptives*, II, pp. 223, 226), was built for him by Ramesses III. Before the New Kingdom he seems to have been little known, anyhow outside Upper Egypt<sup>1</sup>—the earliest certain mention of him (except as an element in proper names) occurring in the above quoted passage in the *Gespräch eines Lebensmitteln*, where he is closely associated with Thoth. Even in texts of the New Kingdom and late period<sup>2</sup> he seems to possess practically no features or attributes peculiar to himself, these being nearly all borrowed from the gods with whom he was identified, *viz.* Thoth<sup>3</sup>, Horus<sup>4</sup>, Shu<sup>5</sup>, and Re<sup>6</sup>.

His identification with these gods is quite explicable. As a moon-god he would of course be regarded as a form of Thoth. Since the moon moreover is the left eye of Horus (SETHE, *Zur Sage vom Sonnenauge*, pp. 4—7), he was closely associated, and finally identified with, that god. His identification with Re, which came late in his history, is explained by SETHE (*op. cit.*, p. 6, n. 2). Finally as son of Amun, whom the Theban priests identified with Re-Atum, he naturally assumed the role of Shu (BUTOSCH, *Religion und Mythologie*, p. 495).

It was in his capacity of Khons-Horus, Khons-Re, that this god was assigned a hawk's head. His real form, as we have seen, is that of a handsome young prince, with the attribute  *Nefer-hotp*,—the only attribute, it would seem, save one other<sup>7</sup> that he bears in his own right. It is most significant that the inscriptions attached to Khons *qed* Khous, contain no mythological allusions; in fact until the Ptolemaic period no stories seem to have been told about him. He has derived all his characteristics, except his royalty and his youth, from the gods with whom he was identified. His lack of individuality, his youth<sup>8</sup>, his princely attributes, and his name *Hnsu*, all agree with my theory that he is the Pharaoh's placenta, the royal "twin," elevated to the position of a god. The fact that the placenta was never, like the majority of the Egyptian gods, conceived of as a person who had once actually lived on the earth, would account for the lack of stories about Khons. Moreover he is, as it were, the representative of all royal placentae, and would, one imagines, have come into existence as a god when the real significance of the name *h-nsw* had begun to fade. The time that this began to happen might well have been towards the end of the XIIth Dynasty, or the period between the XIIth and XVIIIth (cf. the remarks of KEEPS, *Opfertanz*, p. 8), the very time when the god Khons begins to come before our notice. The fact that the king could be said to have two placentae (see above pp. 243—4)

<sup>1</sup> See p. 236, footnote 5.

<sup>2</sup> In the very late Beniresh stela (see BURGESS, *Records*, III, § 429 ff.) which describes him as a god who cures those who are possessed with evil spirits, he is entitled "Khons-the-Plan-Maker-in-Thebes" 

<sup>3</sup> CHAMP., *Not. descr.*, I, p. 724, II, pp. 84, 724, 206, 208; LANZONE, *Dizionario di Mitologia Egizia*, Pl. CCCXV.

<sup>4</sup> CHAMP., *op. cit.*, II, pp. 84, 206, 213; LANZONE, *Iscr. cit.*

<sup>5</sup> CHAMP., *op. cit.*, II, pp. 206, 811; PIEHL, *Inscr. bildogr.*, p. 188, 4; MÖLLER, *Die beiden Totenpapyri* Rhind, p. 85 (107).

<sup>6</sup> CHAMP., *op. cit.*, II, pp. 219, 226.

<sup>7</sup> See above, footnote 2.

<sup>8</sup> Cf. the determinative in  etc.

as early as the VIth Dynasty, is a hint that the purely *physical* basis of the belief in the Pharaoh's twin had even then begun to be lost sight of.

But it might well be asked what possible connection there could be between the Pharaoh's placenta and the moon. On this point, so far as I can ascertain, Egyptian records have nothing to say. In ROSCOE, *The Baganda*, p. 236, however, we learn that the King of Uganda's umbilical cord-stump (= his placenta) was closely associated with the moon. "Once a month he (the *Kimbugwe*) carried the 'Twin' into the royal presence, and placed it before the king, who took it out of its wrappings of bark cloth and after inspecting it returned it to the *Kimbugwe*, who wrapped it up and restored it to the temple. This was done at each new moon; after the 'Twin' had been taken to the King, it had to be exposed in the doorway of the temple for the moon to shine upon it (the italics are mine), and it was also anointed with butter."

#### ADDITIONAL NOTE

After this article had been printed, it was brought to my notice by a physician that uniovular twins have only one placenta<sup>1</sup>, and are always of the same sex (see for example EDEN, *Manual of Midwifery*, pp. 86-8, 3rd edition, 1908). Moreover it is these uniovular twins, I was informed, that bear such a close, often indistinguishable, likeness to one another.

The Egyptians may well have noticed that in the case of twins the single placenta coincided with identity in sex and appearance. This natural phenomenon, therefore, possibly accounts for such expressions as *wl hr hw-f*, *nn wn hr hw-f*, *nn ky hr hw-f*, *wl hr hw n Imy-ch* (see pp. 241-3). If so they are to be rendered (literally) "sole one upon his placenta," "there is not one (sc. beside himself) who is upon his placenta," "there is not another upon his placenta," "sole one upon the placenta to him who is in the palace,"—the idiom originating in the fact that when a person is not one of uniovular twins (in which case there would be two children of the same sex and appearance upon a single placenta), his exact (*living*)<sup>2</sup> counterpart does not exist, i.e. he is a unique person (*nn twt-f*, *nn smw-f*). Eventually, by a natural enough process, *hr hw-* came to mean little more than "like," "as well as," "besides," as is shown by examples nos. 11, 12, and 13.

If this suggestion is correct, it does not, I think, invalidate the explanation given in the preceding pages of this article, of the use of *hw* in such connections as examples nos. 1 and 14, or what has been said about the twofold aspect of the placenta-ghost (pp. 235-41).

The very close resemblance of the hieroglyph ☽ to a placenta, it might be noted, is well illustrated by figs. 25, 47, on pp. 39, 87 of EDEN's above-quoted *Manual of Midwifery*.

<sup>1</sup> Usually the umbilical cords are separate, but they are sometimes fused at the insertion into the placenta.

<sup>2</sup> But the ghost of the placenta would have been regarded as his exact *spiritual* counterpart (see above, p. 242, n. 2).

## THE *KA*-HOUSE AND THE SERDAB

BY AYLWARD M. BLACKMAN, M.A.

AMONG the numerous Old Kingdom mastabas uncovered by Dr JUNKER in the course of his excavations in the Pyramid-field of Gizeh, during the season 1912-13, was one of rather unusual design, belonging to a courtier named Rawér. A full description will be found in JUNKER, *Vorbericht über die zweite Grabung bei der Pyramiden von Gizeh vom 16. Dezember 1912 bis März 1913*, pp. 10-13. Parallel to Rawér's mastaba, on the east side of it, and so close as to leave only a narrow lane between them, lay a mastaba of somewhat earlier construction. The south wall of Rawér's mastaba was prolonged so as to join on to the south-west corner of this other mastaba (see fig. 1 in text), thus blocking one end of the lane. In the thickness of

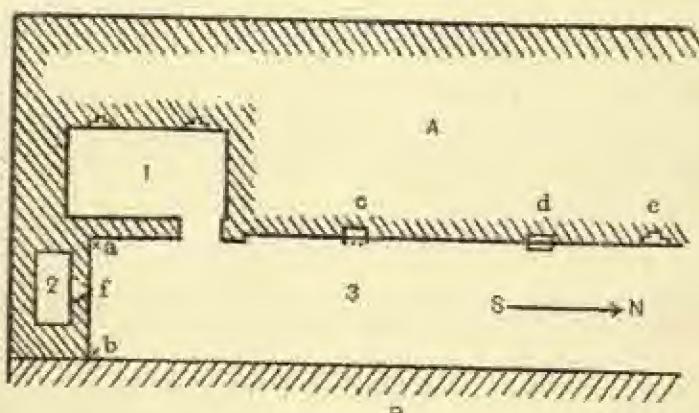


Fig. 1.

- |   |  |
|---|--|
| A. Mastaba of Rawer.<br>B. The mastaba lying to the east of A.<br>1. Cult-room.<br>2. Serdab. | 3. Lane between the two mastabas.<br>a-f. Position of the inscribed frieze.<br>g. Offering-plaques.<br>h. Serdab-squint. |
|---|--|

this connecting wall is the serdab belonging to Rawér's mastaba, with the usual squint (e.g. L., D., ii, Pl. 5, 25; STEINDORFF, *Das Grab des Ti*, Pl. 132) in the north side. Above the squint, forming the frieze on the north face of the wall, was an inscription in large and deeply cut signs. According to JUNKER, *op. cit.* p. 12, the inscription consists of the titles of Rawér followed by  *h-t k3*, "house of the *ka*." JUNKER tells us that the frieze was not in position when found, but that it had fallen down and lay close to the wall of the serdah, "exactly beside the place where it had formerly

stood, so that there could be no doubt about the original position." Since this inscription was above the serdab-squint, JUNKER infers that "house of the *ka*" is the name for the serdab; he accordingly comes to the conclusion that MASPERO's theory about the *ka* and its relationship with the statue is, after all, correct.

MORET, however (see *A.Z.*, 52, p. 88), examined the inscribed blocks in question, which had been deposited in the Cairo Museum, and found that in front of Rawer's titles and name was a group of signs that JUNKER has not recorded in his *Vorbericht*.

The whole inscription reads: — "Eyes of the *ka*-house of the scribe of the king's records in the presence, the king's acquaintance, Rawer."

It would appear, therefore, that the Egyptian name for the serdab-squint is "eyes of the *ka*-house."

MORET, on the contrary (*A.Z.*, 52, pp. 88-9), thinks that if "eyes of the *ka*-house" were the name for the serdab-squint, the inscription would have been, not upon the frieze, which runs the whole length of the north side of the serdab, but around the squint itself. Surely this demands greater exactitude on the part of the ancient architect than one can reasonably expect!

MORET (rightly as I think) also holds STEINDORFF's view (*A.Z.*, 48, pp. 154-5), that the *ka*-house is the whole mortuary building, not one particular portion of it.

He therefore argues that if by "eyes of the *ka*-house," the squint were meant, then the *ka*-house would have to be the serdab, which, in his as in my opinion, it is not. He accordingly maintains that "eyes of the *ka*-house" is not the name for the serdab-squint, but for the serdab itself.

Since writing that article, MORET has published in *Comptes rendus*, 1914, p. 538 ff., a most interesting and important text, in l. 42 ff. of which we read: "These *ka*-servants shall do their business in the matter of the little fumigation and every good thing appertaining thereto, (and) they shall not tarry sitting<sup>1</sup> in the *ka*-house." It is quite obvious that here "*ka*-house" cannot mean "serdab." Indeed the serdab, apparently, could not be entered when once it had been roofed over, and it was so small that no *ka*-servants would ever want to "tarry sitting" in it. In short, this passage combined with one quoted by STEINDORFF in *A.Z.*, 48, p. 155<sup>2</sup>, shows pretty clearly that the *ka*-house is nothing more or less than the chamber, or collection of chambers, forming the entire tomb-chapel.

If we adopted the view, which MORET rejects, that the "eyes of the *ka*-house" are the serdab-squint, would that necessarily involve our taking the *ka*-house to be the serdab, which, in my opinion, it cannot be?

<sup>1</sup> Or perhaps "guardian of the king's afterbirth" (see SERAS ap. BORCHARDT, *Grabdenkmal des Königs Sahure*, II, p. 77).

<sup>2</sup> This makes one think of the bench in the open court of Meni's mastaba at Denderah (PETRIE, *Denderah*, p. 6).

"I made excellent...my grave in my *ka*-house" (MORGAN, *Cat. mon.*, I, p. 177).

At this juncture it would be as well to recall the fact that the cap-stone of Amenemhet IIIrd's pyramid has two eyes carved upon it (BREASTED, *History of Egypt*, fig. 94), and that two eyes, painted or inlaid,—often with the representation of a door or of a "façade-stele" (see VAN GENNEP-JÉQUIER, *Le Tissage aux Cartons*, p. 27) beneath them,—are frequently found upon the head-end of the left side<sup>1</sup> of Middle Kingdom coffins—the part to which the face of the dead would be turned (ERMAN, *Handbook of Egyptian Religion*, pp. 128–9; JUNKER, *J.E.A.*, i, p. 251). Similar eyes are also common on so-called false doors<sup>2</sup> and stelae, especially those of the periods of the Middle Kingdom and XVIIIth Dynasty (fig. 2 in text; VAN GENNEP-JÉQUIER, *op. cit.*, p. 34, fig. 35; DAVIES, *Five Theban Tombs*, Pls. III, V, XX; DAVIES-GARDINER, *The Tomb of Amenemhet*, Pl. XXV, and cf. Pl. XXVII; *Egyptian Stelae in the British Museum*, ii, Pl. 32, iii, Pl. 20). In the tomb-chapel of Ukh-hotp, son of Ukh-hotp and Heni the Middle, at Meir (BLACKMAN, *Rock Tombs of Meir*, i, pp. 9, 12, 13, 17), there are three pairs of eyes upon the west wall, one to the north of the statue recess, and two to the south of it. The eyes, each pair of which is in a yellow rectangular enclosure, are placed in the middle of scenes depicting Ukh-hotp spearing fish and hurling his boomerang at wild-fowl; but they clearly have no connection with these scenes. There is also a pair of eyes on the west wall of the statue-recess<sup>3</sup>.

The eyes on the pyramid cap-stone and the coffins were not protective, but, as we learn from the inscription which accompanies them on the cap-stone and also on one coffin, enabled the dead to see the light of day<sup>4</sup> (BREASTED, *Development of Religion and Thought in Ancient Egypt*, p. 73; ERMAN, *Handbook of Egyptian Religion*, p. 129). I cannot help thinking, however, that the main object of the eyes on the west wall of Ukh-hotp's tomb-chapel, and of those on the false doors and stelae, was to enable the deceased to look out of the spirit-world into the tomb-chapel<sup>5</sup>; see all the visitors

<sup>1</sup> Sometimes on the interior (LACAU, *Sarcophages antérieurs au nouvel Empire*, i, Pl. I ff.; sometimes on the exterior, surface (*op. cit.*, Pls. XXIV, XXVII–IX).

<sup>2</sup> In certain VIth Dynasty examples, e.g. the sculptured false door in the cult-room, and the freestanding false doors in the burial chamber, of Menka's Mastaba, the eyes are on the folding doors themselves, one on either flap (PETRIE, *Denderah*, Pls. I and II).

<sup>3</sup> The lower half of the wall is occupied by a "façade-stele." In the upper half, which is surmounted by a *khabs*-frieze, are the usual seven vases of oil-ointment. Above these are two of Ukh-hotp's wives squatting on a mat, and above them again, the two eyes between the symbols for Upper and Lower Egypt.

<sup>4</sup> The actual words of the text are:—"The face of N. is opened, that he may behold the face of the Lord of the Horizon whom he sails across the sky." GRIFFITH was evidently unaware of these two inscriptions when he wrote his contribution to PETRIE's *Denderah* (see p. 42 of that work).

<sup>5</sup> Just as the false door enabled the deceased to enter the tomb-chapel (DAVIES-GARDINER, *The Tomb of Amenemhet*, p. 74; CARAUX, *Ces Rues de Tombes*, Pl. XCIV; MASPERO, *Dawn of Civilization*, pp. 253–4), so the "eyes" would permit him to see into it.

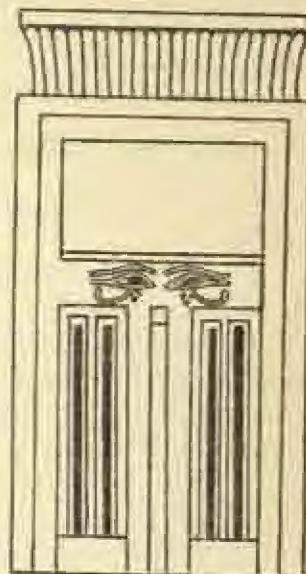


Fig. 2.

False door in tomb-chapel B,  
No. 3 at Meir (see BLACKMAN,  
*Rock Tombs of Meir*, p. 8).

who entered it from time to time, and watch the progress of the funerary services periodically performed therein. MORET could surely raise no objection to calling such eyes as these the "eyes of the *ka*-house"?

The eyes seem generally to have been placed where the presence of the dead was located in a special degree. They are on the coffins, because the coffin was the repository of the corpse; on the west wall of Ukh-hotp's tomb-chapel, because the abode of the dead was situated in the West; on the false doors and stelae, because in and about them the presence of the dead was felt especially to reside<sup>1</sup>. In a mastaba the presence would naturally be located in the serdab, for it contained the statue, the substitute for the corpse<sup>2</sup>. The wall of the serdab, therefore, is just the place where one would expect to find eyes.

But apart from every other consideration, if we bear in mind, what MORET accepts, but momentarily seems to have forgotten, that the *ka*-house is the *whole* tomb-chapel building, of which the serdab is but a small *part*, the only serious objection to the view that the serdab-squint is the "eyes of the *ka*-house" is removed<sup>3</sup>. The fact of the term "eyes of the *ka*-house" being applied to the serdab-squint does not imply that the serdab is the *ka*-house. The "eyes of the *ka*-house" just happen to be placed in that *part* of the *ka*-house where the presence of the deceased was especially located, and, when the *ka*-house was a mastaba, that part naturally enough would be the serdab.

There are several good reasons for the serdab-wall being furnished with a slit instead of with a pair of sculptured or painted eyes, though these would, it is true, be all that the spirit would require to enable it to see into the tomb-chapel. But in some of the periodical funerary services performed therein it was desirable for the deceased's body, or its substitute the statue, to be in close proximity to, if not in actual contact with, the mystic implements and offerings of the mortuary priests; it was particularly important for the incense smoke to envelop the statue (*A.Z.*, 50, p. 71 ff.). The serdab-squint would make the fumigation of the statue possible, and would allow the priests to make their magic passes close to its face, before which the offerings could be held up in the manner prescribed (MASPERO, *La Table d'Offrandes*, pp. 11, 12). Again the squint would enable the priests and visitors to see the dead in bodily form,

<sup>1</sup> The false door was usually in the west wall of the cult-chamber (e.g. STEINHORST, *Das Grab des Th*, Pls. 45, 139, 140; CAPEAU, *Une Rue de Tombes*, Pl. IX). As the deceased was imagined to be behind it, in the spirit-world, many of the periodical funerary ceremonies took place in front of it (DAVIES-GARDNER, *op. cit.*, pp. 74, 75). The deceased could be actually immanent in his stela, and offerings were therefore brought to it (DAVIES-GARDNER, *op. cit.*, pp. 99—100; cf. *Egyptian Stelae in Brit. Mus.*, ii, Pls. 9, 18).

<sup>2</sup> See DAVIES-GARDNER, *op. cit.*, pp. 57–8. To what lengths this substitution could be carried appears from the contracts made by Zefaihap with the priests of Anubis and Upwawet at Asyût, for the maintenance of the cult of his four statues (BRAESTED, *Records*, i, §§ 335–33; in, *Development of Religion and Thought in Ancient Egypt*, p. 259 ff.). Of these statues, one was placed in the temple of Anubis and one in the temple of Upwawet, so that Zefaihap might participate in the festivals of these gods, the third in, or near, his tomb-chapel, and the fourth in a garden. As we have recently learnt, Zefaihap's tomb at Asyût was a cenotaph, his corpse being buried hundreds of miles away in the Sudan (REISNER, *A.Z.*, 52, p. 43). See also ERMAS, *Handbook of Egyptian Religion*, pp. 134–6; JUNKER, *J.E.A.*, i, p. 253.

<sup>3</sup> If, as has been suggested, the object of the "eyes" was to enable the dead to look into his tomb-chapel (*ka*-house), we have more reason than ever for supposing the "eyes of the *ka*-house" to be the serdab-squint.

and this would give to all their actions a reality that they would otherwise lack. Thus the serdab-squint would have served as "eyes" for the living no less than for the dead.

To clinch the whole matter, the Egyptian word for serdab is actually preserved to us.

In the bottom register of the scenes on the east wall of one of the rooms in the tomb-chapel of the youngest of the three Pepionkhs at Meir (BLACKMAN, *Rock Tombs of Meir*, i, pp. 6, 10), there is a mutilated scene depicting a row of that nomarch's statues (Pl. XXXIX, fig. 1). The explanatory inscription reads:



"Arrival (?) of the statues of the nomarch, treasurer, superintendent of the South, confidential friend, lector, superintendent of the priests, Hemi the Black, at the statue-house." That *pr-twt* "statue-house" is the word for serdab is proved conclusively by the following fact. When the scene was complete the statues faced, and were in close proximity to, the now destroyed squint-hole belonging to the actual serdab of Pepionkh's tomb-chapel. The floor of the serdab is considerably lower than that of the room adjoining it, and what remains of the ceiling does not permit a man to stand upright beneath it. That this chamber was the serdab is shown by the fact that its walls are covered with rows of representations of statues (Pl. XXXIX, fig. 2). Each statue is depicted as standing upon the usual pedestal, and has a name and title of Pepionkh written in front of it.

After the serdab and the room adjoining it had been decorated with reliefs, Pepionkh changed his mind and replaced the serdab with a large room, the east and west walls of which are covered with remarkable funerary scenes (BLACKMAN, *Rock Tombs of Meir*, i, p. 6). This alteration necessitated the partial destruction of the serdab and the cutting of a door, which absorbed the squint<sup>1</sup>, through the left ends of the reliefs on the east wall of the outer room. Fortunately the greater portion of these reliefs is intact, including the right end of the bottom register (see Pl. XXXIX, fig. 1), where the Egyptian name for what archaeologists call the serdab is preserved.

Thus we now know definitely that the Egyptian name for the serdab, anyhow in the VIth Dynasty, was *pr-twt* "statue-house," and, at the same time, we have good reasons for believing (a) that the squint was called the "eyes of the *ka*-house," and (B) that "*ka*-house" was a term for the chamber, or group of chambers, forming the tomb-chapel.

<sup>1</sup> As GARDINER has pointed out to me, neither *spt* nor *šms* (cf. STEINPOHL, *Des Grab des Ti*, Pls. 62–70; NEWBERRY, *Beni Hasan*, i, Pl. XXIX) is likely, since there is no trace of the rope or ropes for pulling. I therefore suggest *spr*; the statues have arrived at the statue-house and have been taken off the sledges, which have been removed along with the ropes attached to them.

<sup>2</sup> There must have been a sufficient opening to admit the statues, which, however, were not necessarily very large. Probably the opening was subsequently reduced by masonry work to the dimensions of an ordinary squint.

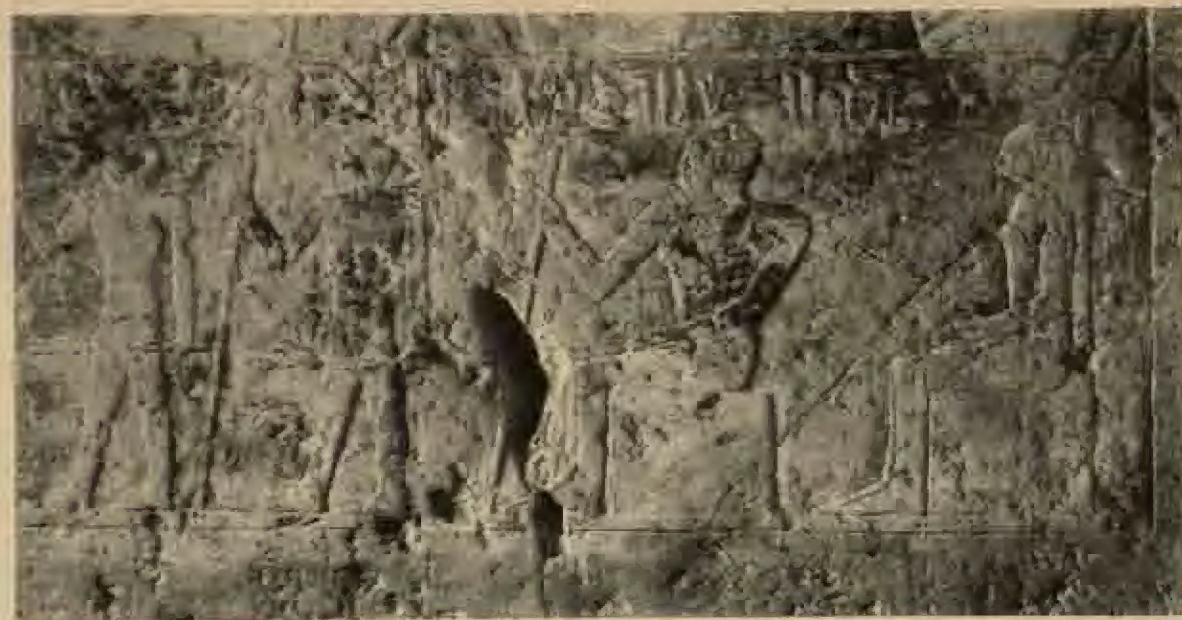


Fig. 1. STATUES OF PEPIONKH THE YOUNGEST

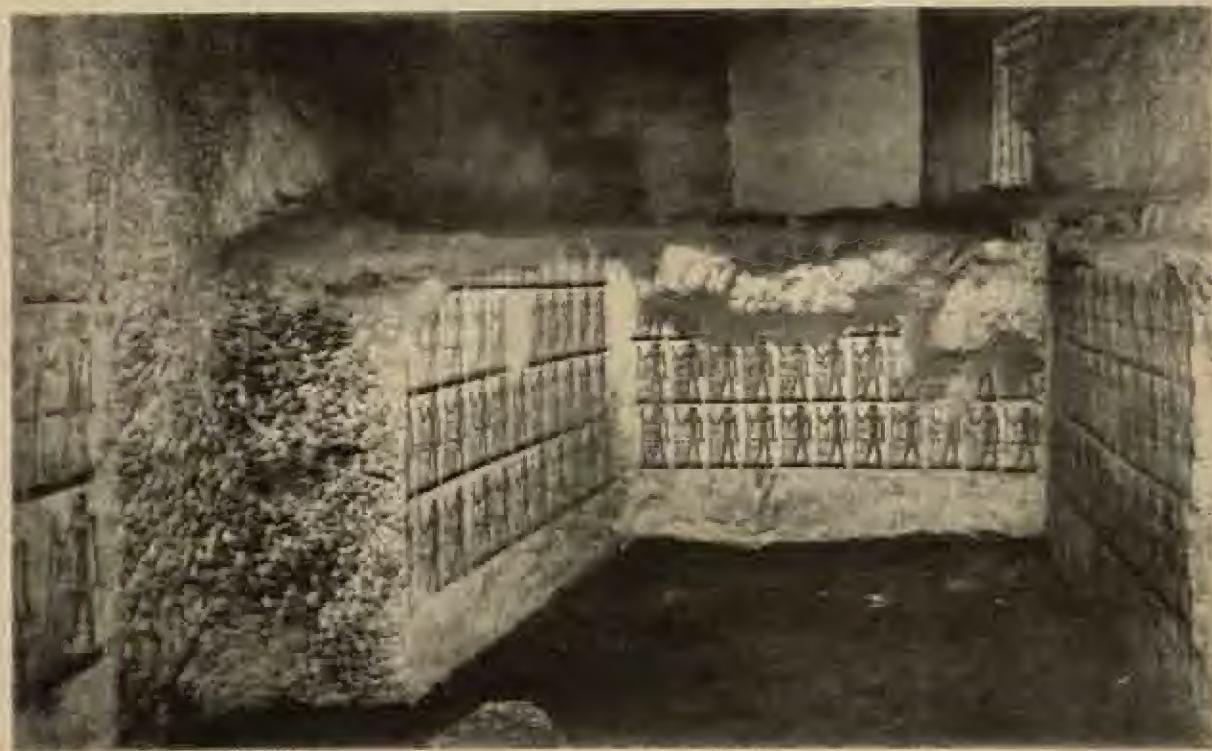


Fig. 2. "STATUE-HOUSE" OF PEPIONKH THE YOUNGEST



## AN OMPHALOS FROM NAPATA

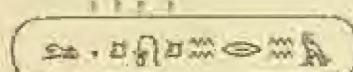
BY F. L. GRIFFITH, M.A.

With Dr REISNER's kind permission a sketch, made from a photograph, is here given of a remarkable Meroitic monument which he discovered last year at Gebel Barkal, towards the inner end of the great temple of Ammon. It is of sandstone and evidently of moderate size. Its conical shape is precisely that of the omphalos at the oracle of Delphi<sup>1</sup>. In a previous note<sup>2</sup> I ventured to identify it with the umbilicus-like figure of the god of the Oasis of Ammon which is recorded only by Quintus Curtius in the following description:—"The thing which is worshipped as a god has not the shape that artificers have usually applied to the gods; its appearance is most like an umbilicus, and it is made of an (*i*) emerald and gems cemented together<sup>3</sup>". But M. DARESSY had already discovered a strange sack-like form of Ammon of Karnak with which he quite appropriately compared this description of the Ammon in the Oasis<sup>4</sup>.

Anyhow the present omphalos is unique from Nubia and is probably to be connected with an oracle of Ammon. Perhaps the imitative Nubians took the idea from Delphi. The curved top is decorated as if with strings of beads or pendants, the sides are sculptured with figures of deities and two royal cartouches, and a band of upright lotus buds and flowers encircles the base. The cartouches contain an Egyptian prenomen



Nibmere<sup>c</sup>, copied from that of Amenhotp III, and a Meroitic nomen



*Mnhmēwēl (?) i.e. Amani-khanēwēl (?)*. This makes a second

Meroitic Nibmere<sup>c</sup>, there being already known an Amani-tenmēmize with that prenomen in the shrine of Pyramid A 38 at Meroe<sup>b</sup>. The date of the monument would seem to be round about A.D. 1.

<sup>a</sup> DARESSY ET SAGlio, *Dictionnaire des Antiquités*, s.v. Omphalos.

<sup>b</sup> Journal III, p. 221.

<sup>c</sup> CURTIUS IV, 7.

<sup>d</sup> Annales du Service des Antiquités IX, 64.

<sup>e</sup> Mer. Inscri. I, nos. 96, 67.

## A STELE OF THE EARLY EIGHTEENTH DYNASTY FROM THEBES

BY ALAN H. GARDINER, D.LITT.

In Pl. XL is represented a typical, but rather exceptionally well carved, limestone stèle of the Early Eighteenth Dynasty, discovered at Thebes by Lord CARNARVON in the season of 1913-14. Its exact provenance, Mr CARTER tells me, was the Maadara (see the map, Pl. XIX of this volume), where it was found in the upper rubbish above Middle Kingdom and Intermediate pit-tombs. The owner was a "chief of the weavers of the God's wife, Ahmôse, (also) called Pesiûr," who is depicted sitting, together with his spouse "the lady of the house, Thesh," in front of a table of offerings; upon this libations are being poured by a lector-priest, whose name the sculptor has forgotten or omitted to elicit, for a blank space occurs where we should expect to find it written. The superscription reads:—

"Making libation and incense and all things good and pure, the lector-priest —————<sup>4</sup>

Four and a half lines of text occupy the bottom of the stèle, and give the usual funerary formula:—

"A boon which the King gives to Osiris in front of the Westerners, the great god, prince of eternity, that he may give offerings of bread and beer, oxen and geese, and all things good and pure given by heaven, created by earth and brought by Nile from his cavern, to the *ka* of the lady of the house, Thesh, and to the *ka* of the chief of the weavers of the God's wife, Ahmôse, (also) called Pesiûr. It is her daughter (*i.e.* the daughter of Thesh) who caused her name to live, the lady of the house, Mi.<sup>5</sup>

The stèle, as it will be seen, is thoroughly typical of the period to which it belongs, and presents no abnormal features; however it merits the prominence given to it here on account of its fine execution and the admirable composition of the reliefs.



STELA FOUND BY THE EARL OF CARNARVON AT THEBES



## BIBLIOGRAPHY 1915-1916: ANCIENT EGYPT

By F. Ll. GRIFFITH, M.A.

The first place this year may well be given to Dr A. H. GARDINER's great discovery of an extremely early alphabet which corresponds in part to the ancient Semitic alphabet and brings us almost to the very origin of alphabetic writing, that goal which has attracted and baffled generation after generation of scholars. It is appropriate to introduce the discovery prominently in a review of Egyptology, for though this alphabet is not Egyptian it is found on soil which belongs to Egypt, the inscriptions by which it is represented were dedicated in an Egyptian shrine, and it is through Egyptian evidence that their age and to a certain extent their meaning are recognisable.

The event of most importance to Egyptology itself is the melancholy one of the death of Gaston MASPERO. It is sad to reflect that the name of MASPERO must now disappear at least for a time from the annals of contemporary Egyptology. Of that gifted family the eldest, Henri MASPERO, after one promising work, published in 1905, on the Ptolemaic fiscus, turned away from Egypt to the Far East, where Georges, the second, is winning distinction in the Civil Service of Indo-China; the youngest, Jean, fell a victim to the war last year in the first flower of his brilliant development as an authority on Byzantine Egypt, and now Gaston their father has followed him quickly to the grave, full of honours and with a rich record of work accomplished during half-a-century of devoted labour.

In *L'Egyptologie*, one of a series of brochures under the general heading *La Science Française*, MASPERO has given us a review of French work during his own period of activity beginning in 1867, the date of a similar report by his predecessor in the chair of CHAMPOUILLON, the Vicomte Emmanuel DE ROUGÉ.

Professor PETRIE describes the growth and arrangement of the Egyptian Museum at University College, London, in an illustrated article. *Anc. Eg.* 1915, 168.

A. M. L[VRHOE] sketches the policy of the Metropolitan Museum in regard to excavations etc. in Egypt during the war. *Bull. Metr. Mus.* x, 207.

A work entitled *Au Sinai et dans l'Arabie Pétrée*, by Léon CARRÉ, professor in the theological faculty in the University of Neuchâtel, is the diary of a student's tour through the most interesting parts of the Sinai peninsula, together with a discussion of the problems of the Exodus. It was originally published in the *Bulletin de la Société neuchâtelloise de Géographie*, t. xxiii, and is reviewed by JÉQUIER in *Revue de théologie et de philosophie*, No. 18, Jan.-Avr. 1916.

*Egypt of the Egyptians*, by W. L. BALLS, is an account of the land and people by a former official in the department of agriculture, especially interesting in the description of the fellah and his agricultural operations; it is illustrated by a few photographs of particular excellence.

In *Journal*, III, 41, is an account of the proceedings affecting Egyptology in the Anthropological section of the British Association at Manchester, 1915.

Attention may be drawn to numerous reviews of Egyptological journals and other publications in *Ancient Egypt*, many of which are no doubt from the pen of its distinguished editor. Not all of these have been separately noted in the present Bibliography.

#### EXCAVATIONS AND EXPLORATIONS.

NAPATA. Brief notice of Dr REISNER's work at Gebel Barkal in 1915-16, *Journal*, III, 220.

KERMA. A further report from Dr REISNER on this extremely interesting site gives his results and conclusions down to the end of the season 1914-15. Throughout the Middle Kingdom Kerma was the residence of an Egyptian governor; here the local arts of the potter, etc., under Egyptian encouragement or in the hands of Egyptian workmen attained an extraordinarily high degree of excellence without at all losing their peculiar character: similarly, enlarging on a native fashion, when the governor died he was buried in a huge circular tumulus, at which multitudes of cattle were sacrificed, and numbers of natives were strangled and interred with suitable equipment. The only purely Egyptian features in the burial were some statues and inscriptions and alabaster vessels and such like imported from Egypt. Strange to say glazed ware was in abundant use at this time at Kerma, and like almost everything else on the site had been made on the spot, there being endless relics of the factories for it. Gold was freely used; its source may have been as far off as the alluvial deposits on the border of Abyssinia. All this prosperity came to an end in the Hyksos period, when the Egyptian fortress was overwhelmed and the whole settlement burnt and abandoned. *Boston Mus. Bulletin*, XIII, 71; cf. *Anc. Eg.* 1916, 86.

DAKKA. The *Report for 1909-10* of the *Archaeological Survey of Nubia* by C. M. FRITH is devoted entirely to the archaeological results of the excavations in the town and cemeteries of Dakka. In the town fortress buildings and wine stores of the Roman period were brought to light with inscribed ostraca in Greek and demotic with one in Meroitic; a fair number of pieces of Meroitic ware occurred along with the Romano-Egyptian and the "X-group" ware which is characteristic of the Dodecaschoenus. Dakka may be said to mark the northernmost limit of Meroitic influence in such remains, though Meroitic graffiti are found as far as Philae. The Christian remains at Dakka are unimportant; on the other hand the earlier cemeteries back to prehistoric times are extensive, and those of the C-group are of the highest interest. The Introduction gives an interesting discussion of the periods represented and acute suggestions to explain the extraordinary historical gaps which are seen here as elsewhere in Lower Nubia.

OMBOS. Report on improvements and repairs at the temple (cleared and restored by DR MORGAN twenty years earlier), in the course of which objects ranging from Dyn. XVIII to the Coptic period were found. BARSANTI, *Ann. du Serv.* xv, 168.

SECOND CATARACT. Somers CLARKE describes the fortresses of the Second Cataract, ten in number, from Buhen to Semna, illustrating his memoir by plans made chiefly in 1899, and a reconstruction of the fort at Semna, *Journal*, III, 155; this essay is followed by a note on the fortress of Gazirat el Malik (Uronarti), by R. Douglas WELLS, with plan, *ib.* 180, a similar note on the temple in the fortress of Mergisse (Matuka) as it appeared in 1892, by Major H. G. LYONS, *ib.* 182, and commentary on a list of names of seventeen Nubian fortresses from a papyrus of the Middle Kingdom by Dr GARDINER, *ib.* 184.

Note on Orie BATES' work for Harvard at Abka. *Journal*, III, 219.

THERES. Accounts of the last work undertaken by the late Mr Theodore M. DAVIS are printed by the Metropolitan Museum in its *Bulletin*:—

In 1905 Mr AYRTON, excavating for Mr DAVIS, had penetrated down long corridors in the tomb of Siptah as far as the second chamber, but stopped the work owing to its dangerous condition. In 1912, as no fall had taken place, Mr DAVIS resumed, with Mr BURTON superintending, and in two seasons completed the clearance, finding a corridor with an abandoned extension to the side, and at the end the large burial chamber. Most of the excavation was very difficult, being driven through consolidated rubbish formed by falls of the roof and mud washed in, but the burial chamber was found to be only partially filled. Here lay a magnificent sarcophagus of rose granite, nearly complete, in the form of a cartouche, with a group of the royal mummy between Isis and Nephthys sculptured in high relief on the cover. Nothing else was found, except some alabaster ushabtis, limestone jar-stoppers and a few fragments. *Bull. Metr. Mus.* XI, 13.

In January, 1913, BURTON moved Mr DAVIS' workmen to the so-called "palace" of Ramesses III, immediately south of the temple of Medinet Habu. The brick walls for the most part had been destroyed, but a series of stone remains were disclosed, revealing two great halls with three thrones (one of which was flanked by fine columns), some bath rooms, etc., also remains of glazed tiles for inlaying. BURTON suggests that the building was erected for some ceremonial purpose and not as an ordinary residence for the king. It is much to be hoped that the systematic excavation of the site, so excellently begun, may be resumed. *Ib.* XI, 102.

MACKAY reports in detail for 1913-14 on the exceedingly important work of conservation which is being carried out by him in the Theban necropolis at the expense of Mr Robert MOND. *Ann. du Serv.* XIV, 88.

Howard CARTER describes the tomb of Amenhotp I and Queen Ahmesneferteri discovered in 1914 in the excavations of the Earl of CARNARVON. The tomb was cut in a remote wady which opens into the valley near the Biban el Moluk; unfortunately it had been completely plundered out, but it is of great interest as the prototype of the royal tombs of the New Kingdom; a plan of the tomb with figures of the antiquities discovered is given, as well as a plan of the mortuary chapel in the Nile valley. *Journal*, III, 147.

N. de G. DAVIES describes the work done in the Theban necropolis in 1914-15 for the Tytus fund. Plans of several important tombs were secured by complete clearances, and copies and tracings of wall paintings were made. The well-known tomb of Nekht yielded an unexpected treasure in a beautiful and well-preserved statuette of the owner [unfortunately since lost in the a.s. Arabic]. *Bull. Metr. Mus.* X, 228 (illustrated).

EVELYN-WHITE reports on the work of the main New York expedition in 1914-15, which included the clearance of three tombs of various ages, but was chiefly devoted to continuing the excavations at the Palace of Amenhotp III, begun in 1910-12. The foundations of a second building, resembling that of the king, but on a smaller scale, are planned and described. *Ib.* x, 253.

The work in 1915-16 is briefly described by N. de G. DAVIES, principally the clearance of the tomb of Puimre and the excavation of the remainder of the XIth Dynasty Birabs, partly explored by Lord CARNARVON. *Journal*, III, 218.

BARSANTI describes difficult but successful repairs at the temple of Qurna accomplished in the two seasons 1910-11 and 1913. *Ann. du Serv.* xv, 148.

LEGRAIN has cleared the southernmost pylon of Karnak, constructed partly of blocks from the Aton temple of Amenhotp IV. The door was built, or at least decorated, by Harmais (Horemheb). On the door are restoration inscriptions of Petubastis and of another king whose cartouche has been usurped by Psammetichus I. The colossi in front bear the name of Rameses II but were erected by Harmais; at the base of the eastern one stood four crouched statues of scribes, two of which represented Amenhotp son of Hapu, the other two Pramesse son of Sety. The latter personage bears among other titles that of "heir of the two lands," and is evidently the prince who afterwards ascended the throne as Rameses I and founded the Nineteenth Dynasty. The inscriptions on the laps of all these statues were much worn, apparently by the pious touch of endless visitors. All the texts and monuments in these exceedingly interesting finds are fully discussed by LEGRAIN. *Ann. du Serv.* xiv, 13.

ABYDOS. Clearances in the ruined first court of the Sety temple have revealed colonnade at the back and the pylon in front. The inscriptions include a list of princes and princesses, sons and daughters of Rameses II, and texts of Mineptah. LAFEBVRE, *Ann. du Serv.* XIII, 193.

Photographs with architectural and other notes of the temple of Rameses II by the late Mr Hugh STANNUS, edited by Miss M. A. MURRAY, *Anc. Eg.* 1916, 121.

BELANISH (on the opposite side of the Nile from Abydos). Brief report of excavations in a cemetery of Dyn. XVIII and of pan-grave age, with figures of some of the most important objects from the pan-graves, including a beautiful bag of elephant hair. WAINWRIGHT, *Journal*, II, 202.

RIFA, MEIR, QUSÉR EL AMARNA, etc. Report on excavations with inscriptions etc., including on p. 87 a list furnished by SCHWEINFURTH of seeds out of two model granaries from tombs of Dyn. XII. KAMAL, *Ann. du Serv.* XIV, 45. KAMAL reports that Said Bey KHASHABA has given a museum to Minyeh furnished with objects from recent excavations in the district; publishes Coptic remains from a cemetery at Manqabat north of Asyut; inscriptions and antiquities from an Old Kingdom cemetery at El Alameen behind Mansalut; objects of various periods from the cemetery of Sherifa west of Beni Husén and north of Asyut; late antiquities from a cemetery at Titalla, south of Quaiya; late coffins etc. from the south end of Meir. *Ann. du Serv.* xv, 177.

Since 1911 I have neglected to make a systematic examination of the *Comptes Rendus* of the Académie des Inscriptions and now note the following:—

TUNA. Excavations in a large cemetery of Dyn. XVIII-XX, which had long been given over to official and unrecorded plundering, the tombs originally with square superstructures and still containing great sarcophagi of granite or limestone belonging

to the priests etc. of Hermopolis Magna; remains of a temple of Aton; cemetery of Dyn. XXVI. R. WEIL, *Comptes Rendus de l'Acad.* 1912, 484.

ZAUDET EL MAIYITIS. The Kum el Ahmar was a Roman town of well-built houses, the lower vaults of which are still preserved and are more or less free from rubbish. They cover a massive structure, which appears to have been a step pyramid. WEIL, *Comptes Rendus*, 1912, 488; cf. *Journal*, I, 259.

ATTHE, etc. A Ptolemaic tomb painted and inscribed, etc. (MACKAY); examination of the stone dam at Wadi Gerrain near HELWAN, first described by SCHWEINFURTH, now dated by pottery in workmen's dwellings to Dyn. III—IV (MACKAY); cemeteries of KAFR AMMAR (close to the great cemetery at Tarkhan of the First Dynasty) with burials of DYNs. III—VI, and X—XI, also cemetery and remains of temple of Dyn. XXV (MACKAY and WALKWRIGHT); Roman camp at Shurafa, apparently Seunas Mandras, with graves and many small antiquities (ENGELBACH); all in PETRIE and MACKAY, *Heliopolis Kafr Ammar and Shurafa*; reviewed by GRIFFITH, *Journal*, III, 141, where it is pointed out that the capital of the XXIst nome of Upper Egypt was at or near Kafr Ammar and was represented in Greek times by Ακαρθων.

LISHT. Illustrated account of the remarkable discoveries in 1914 at the South Pyramid (cf. *Journal*, II, 236). LVTHGOE, *Anc. Eg.* 1915, 145.

MEMPHIS. Part of a building of Mineptah found at Mitrahine, the walls of crude brick originally frescoed, the roof supported by two columns with inscriptions inlaid in fayence, which is also found on the stone doorways. EDGAR, *Ann. du Serv.* xv, 97.

Account of the removal of the large mastaba of Perneb (Dyn. V) from Sakkara in 1913, now re-erected in one of the halls of the Metropolitan Museum. It is 54 feet long, 40 wide and 18 high. *Bull. Metr. Mus.* XI, 32.

Report of systematic clearances on the site of Memphis by the Eckley B. COXE expedition for the Philadelphia Museum in 1915. FISHER, *Philadelphia Museum Journal*, VI, reprinted in our *Journal*, III, 45; cf. PETRIE, *ib.* p. 61, *Anc. Eg.* 1915, 191, as to the claims of the British School to the site.

GIZEH. Excavations for Boston, 1911-13, in the cemetery west of the Pyramid of Cheops, resulting in a classification of mastabas according to structure and age: they include cased mastabas, with core of massive blocks or of rubble, and those built with walls afterwards filled by rubble. "The royal cemetery came to an end with the end of the Fourth Dynasty and the priestly and official cemetery gradually fell into disuse during the time of Pepy II, through the dissipation of the endowments of the Fourth Dynasty or their diversion to other uses." Interesting finds were made of stelae, statues, "spare heads" to replace the injured mummy or statue, and tools. Inside the quarry for the Third Pyramid, to the south of its temple, a cemetery of mastabas and rock-cut tombs of that age was cleared, but was found to have been completely plundered. REISNER and FISHER, *Ann. du Serv.* XIII, 227.

In 1914-15 the Eckley B. COXE Expedition of the Philadelphia Museum working in part of the Boston concession found an altar with the names of Khufu Khafre and Dadefre, and an offering chamber of the Old Kingdom, the vault of which was built of brick with interlocking joints. FISHER, *Philadelphia Museum Journal*, VI, reprinted *Journal*, III, 45.

ABU ROASH. A report by M. LACAU, very encouraging for its scientific tone, of the work of the Cairo Institute during 1912-13. An immense series of absolutely

dated pottery, including saucer lamps, has been obtained from the temple of Dadebre's pyramid. A cemetery a mile to the north contains graves of Dyn. III with contracted burials in wooden coffins accompanied by stone vases, and of Dyn. IV with extended burials in coffins but no antiquities. Most important of all, close to the village, are mastabas of Dyn. IV and others of Dyn. II, one of which was excavated and showed subsidiary tombs belonging to it, each of which had been labelled with the bare name of the owner; within were splendid vases in hard stone and other antiquities. *Comptes Rendus de l'Acad.* 1913, 518.

**HELIOPOLIS.** The whole surface according to the examination in 1911–12 shows no occupation after the Saite period. Various monuments and plans of fortifications were obtained. PETRIE, *Heliopolis Kafr Ammar and Shurafa*.

**PELUSIUM** and coast land eastward. Notes on the cemeteries and antiquities as far as El Arish, including a weight of Nekhtnebf from Pelusium. CEDAT, *Rec. de Trav.* XXXVII, 33. The archaeology of the coast between El Arish and Rafa, the boundary of Egypt on the route to Syria. This unrecorded region was guarded in Roman times by a chain of forts within sight of each other; a large establishment at one of these fortresses contained baths, a remarkable mosaic pavement, and remains of statuary. *Id., Ann. du Serv.* XV, 15.

**Kôm el HISS** (capital of the third nome in the Western Delta). Sculptured tomb of a priest of the Middle Kingdom found in 1910 near the site of the temple; in the rubbish was the head of a fine statue in the style now attributed to Amenemhat III, described by EDGAR, who suggests that the site is that of Gynaecopolis. *Musée Égyptien*, III, 54; reviewed by GARDINER, *Journal*, III, 145.

**ALEXANDRIA.** Discovery of tombs near the grounds of the Sporting Club. *Journal*, III, 61.

**PARAETONIUM** (Mersa Matruh). Excavations on an island in the lagoon which represents the eastern part of the ancient harbour; Cypriot ware was found which in conjunction with certain Egyptian evidence may indicate a Semitic settlement at the port. BATES, *P.S.B.A.* XXXVII, 201.

#### PUBLICATIONS OF TEXTS.

##### (a) From sites in Egypt, etc.

**LOWER NUBIA.** BLACKMAN'S *Temple of Derr* reviewed by PEET, *Journal*, III, 63, and his *Temple of Blqeb* reviewed by HALL, ib.

**ASWAN.** The first part of a systematic description of the tombs, beginning with the double tomb of Mekhu and Sabui. BISSING, *Ann. du Serv.* xv, 1.

**H.C.** Block of Tiberius. EDGAR, *Ann. du Serv.* XIII, 284.

**THEBES.** DAVIES and GARDINER, *The tomb of Amenemhet* reviewed by PEET, *Journal*, II, 260.

**KARNAK.** Duplicate texts of Ramesses II and Ramesses III, the latter long known, the former reconstructed from scattered blocks at the Hypostyle Hall. They consist principally of a hymn to Ammon put into the mouth of Wasit, goddess of Thebes, representing all the Hather-goddesses as partakers in the worship of Ammon. LEGRAIN, *Ann. du Serv.* xv, 273.

**MEIR.** *Rock tombs of Meir*, Part III, by BLACKMAN, contains the full record of

another of the remarkable Twelfth Dynasty tombs, that of Ukh-hotp, son of Ukh-hotp and Mersi. Part II was reviewed *Anc. Eg.* 1916, 43; Part III, *ib.* 88.

KAMAL describes his new tomb of Dyn. VI, of Pepi-anhk the Middle, found in 1913. The funerary pits were inscribed and contained the coffins of the owner and his wife, and in a kind of serdab at the entrance stood a group of the same pair. *Ann. du Serv.* xv, 209.

DAHSHUR. Block of Ramesses II at Dahawieh. EDGAR, *Ann. du Serv.* XIII, 284.

From the following sites in LOWER EGYPT EDGAR publishes inscriptions, *Ann. du Serv.* XIII, 277:—

HELLOPOLIS. Blocks of Ramesses III found in cutting a deep drainage trench; block of Teos.

ATHIBIUS. Inscription of Apries.

TERRANEH (Kum abu Billy). Inscription of Ramesses II; DARESSY's identification of the site with Herodotus' Atarbechis is confirmed by the discovery of a cattle cemetery.

TELI, TEBILLEH (south of Dekernes and east of Mansura) a block naming Usirikhas. For various reasons quoted by Mr EDGAR the site is evidently that of the ancient Renifi.

MENDES. Block of Neferites I.

KOM SHEIKH RAZIQ (between Abu Kebir and Faqus). Blocks of Seti I.

BELBÉS. Block of Nekhtharheb.

(b) *From Museums, etc.*

CAIRO. A new part of *Le Musée Égyptien* (III, 2) contains four new fragments of the Palermo stone of early annals and its congeners, one of which may have come from the site of Memphis, another from near Minyeh. They are described by GAUTHIER. The largest is of almost equal size to the original fragment, but the inscription upon it is much worn. It shows remains of a series of predynastic kings of Upper Egypt (corresponding to those of Lower Egypt on the original fragment), and valuable evidence for the early dynasties. Reviewed by GARDNER, *Journal*, III, 143, who asks for a more thorough edition. Discussion of the extent of the text, etc., by PETRIE with diagram of restoration, and photograph of a small additional fragment in his own collection, *Anc. Eg.* 1916, 114.

Ritual of the Opening of the Mouth on a papyrus from Abusir el Meleq. DARESSY, *Ann. du Serv.* XIII, 257. Stela from Shurafa dated in year 16 of Osorkon II, stela probably from Bubastis giving for the first time the full protocol of Sheshong IV, stela from Bubastis of a king who may be Pemon (Pimai), *id.*, *ib.* XV, 140; a damaged monument found by Naville at Tell el Maskhuta (Pithom) is of early workmanship, probably Hyksos, but altered and inscribed by Seti I, *id.*, *ib.* 259.

Stela of Dyn. XIX with adoration of Tety, one of several from the pyramid temple of that king. BARSANTI, *Ann. du Serv.* XIII, 255.

Miscellaneous inscribed monuments and fragments preserved at the French Institute. GAUTHIER, *Bull. de l'Inst. Fr.* XII, 125. One of these has since been ingeniously restored and translated by MORET, who shows that it probably belongs to the vizier Zau of Dyn. VI and must have been found at Abydos. *Comptes Rendus de l'Acad.* 1915, 551.

MARSEILLES. Continuation of the inscriptions in the museum. MASPERO, *Rec. de Trav.* XXXVII, 1.

BERLIN. Two more parts of the inscriptions, containing the texts on stelae, sarcophagi, smaller antiquities, etc. of the New Kingdom (Dyn. XVII—XXIV), edited by ROEDER. *Aegypt. Inschriften aus den königlichen Museen zu Berlin*, VI, VII.

Ushabti of about the Saïte period with cartouche Re-Herakht-senb (?). WRESZINSKI, *Or. Lit.-Zeit.* xviii, 268, cf. ib. 350 where SPIEGELBERG suggests the reading Har-machis.

Statue of Hor, a priest of Ammon at Thebes under Osorkon II, with interesting genealogy. WRESZINSKI, *Or. Lit.-Zeit.* xviii, 353.

LEIDEN. A new volume of the official publication of the Museum devoted to the stone monuments of the Saïte Graeco-Roman and Coptic periods, with a supplementary plate to Part IV of blocks from the tomb of Horemheb at Saqqara, by BOESER. *Beschreibung der Agyptischen Sammlung des Niederländischen Reichsmuseums der Alterthümer in Leiden*, Bd. VII; reviewed by GRIFFITH, *Journal*, III, 142.

MANCHESTER. PEET's *Stela of Sebek-khu*, reviewed by GARDINER, *Man.* 1916, no. 7.

(c) *Miscellaneous.*

Long chapter, numbered xc, of the Middle Kingdom coffin texts. LACAU, *Rec. de Trav.* XXXVII, 137.

Text and translation by GRAPOW of the very important spell or 'chapter' XVI of the Book of the Dead, distinguishing the versions (texts and glosses) of the Middle Kingdom, New Kingdom and late times, a most valuable beginning in the scientific treatment of the texts of the Book of the Dead. *Religiöse Urkunden, Heft I*, in STEINDORFF's *Urkunden des Agyptischen Alterthums*.

Inscription of Dyn. VI or later from Upper Egypt, that has perished since the copy was made, regarding the possessions of the deceased. DARESSY, *Ann. du Serv.* xv, 207. Wooden panels inscribed for a chief priest of Ammon Upauaut-mes of Dyn. XVIII. LEGRAIN, *Ann. du Serv.* xv, 260.

Transcript of a magical papyrus, Salt 825 in the British Museum, giving mythical origins of drugs, etc., of a fragment of a Middle Kingdom literary papyrus in Moscow, and some formulae of ushabtis. TURAJEFF, *Egyptologische zámyetki* in *Bulletin* of the Petrograd Imperial Academy of Sciences 1916.

(d) *Hieratic.* GARDINER edits the famous Carnarvon tablet of Kamosi and the Hyksos with full commentary and extracts the meaning from this difficult text with the greatest success. It is apparently the copy of a stela of the time, relating Kamosi's determination to attack the Semitic invaders (against the advice of his nobles who counselled a peaceful and defensive policy), followed by his capture of Neferus in Middle Egypt. Possibly the complete stela had recorded further progress in the operation; in any case it is clear that this was the beginning of the movement which Kamosi's successor Almosi carried to a triumphant conclusion. *Journal*, III, 95.

(e) *Demotic, etc.* SPIEGELBERG has published copies, given to him some years ago by LEGRAIN, of over three hundred graffiti in the quarries of Gebel Silalleh. Many consist simply of a design or symbol, the purpose of which is not as yet fully explained; some have considered these to be mason's marks, but SPIEGELBERG prefers to see in them

"dedication marks," since most can be interpreted as religious emblems. The graffiti in demotic and Greek (the latter dealt with by PREISIGKE) date almost exclusively from the Roman period and particularly from the reigns of Augustus and Tiberius. The dedications are to various deities, notably to Mont the god of Hermonthis in one quarry and to a certain Pakhimesen, perhaps a canonised quarryman, in another. PREISIGKE und SPIEGELBERG, *Aegyptische und Griechische Inschriften und Graffiti aus den Steinbrüchen des Gebel Silsilé*.

Facsimile and transcript of a new demotic-Greek bilingual sale from Socnopaeus, the *prasis* in fair condition, of the second year of Caligula, together with corrected transcripts of the Greek of two others already published in the Demotic Papyri. JOHNSON, MARTIN and HUNT, *Catalogue of the Greek Papyri in the John Rylands Library*, II, Pl. 22 (a few demotic words also on Pl. 10, third year of Titus), pp. 172-188, 419.

(f) Greek. J. MASPERO publishes Greek inscriptions found by BARAIZE in the approach to the monumental gate of Denderah. *Rec. de Tras.* XXXVII, 93.

Greek inscriptions from Aswan, Tell Timai, Coptos and Tereuthis. EDGAR, *Ann. du Serv.* XV, 105.

Restoration of an inscription in Alexandria (nos. 67 + 169 of BRECHIA Catalogue) recording criminal carelessness of certain guards in the necropolis of Alexandria. S. de RICCI, *Comptes Rendus de l'Acad.* 1916, 165.

## HISTORY

JÉQUIER's *Histoire de la Civilisation Égyptienne*, reviewed by SELIGMAN, *Man.* 1915, no. 88.

A. B. GOSSE, *The Civilisation of the Ancient Egyptians*, reviewed *Anc. Eg.* 1916, 44.

Lady TIRARD writes on the *Soldiers of Ancient Egypt*, *Journal*, II, 220.

On the title "king's scribe." MASPERO, *Rec. de Tras.* XXXVII, 32.

A bronze cylinder seal from Mitrahina bears the Horus-name *Sekhem-kha* which occurs also on two sealings, one of them indicating the Fifth Dynasty later than Neferarkare. Presumably Neferkhabu is Shepseskare of the list of Saqqara. DARESSY, *Ann. du Serv.* XV, 94 [but cf. BURKHARDT and PEPEK, *Handbuch*, no. 67].

The excellent work done by the New York Expedition is illustrated by WINLOCK's able study of the Theban necropolis under the Eleventh and Twelfth Dynasties. For the Eleventh Dynasty the writer distinguishes three periods: (1) period of local Theban (not Hermonthite) monarchs whose power spread over Upper Egypt to Elephantine, (2) establishment of a kingdom in Upper Egypt and war against Heracleopolis, (3) rule over all Egypt. Mr Winlock co-ordinates the scattered and extremely imperfect records of discovery at Thebes with the help of his own observations on the spot. Small pyramids at Dra' abu 'l Naga which had been hitherto attributed to the Middle Kingdom are found to belong in reality to the Eighteenth and Twenty-sixth Dynasties. The great portico tombs (including the Biriba) of the early Antef rulers are successively located surrounded by the tombs of their nobles; the vast Menthotp temple pyramid and sepulchre at Deir el Bahari form one unit with its avenue leading straight from the river in the direction of the early city at Karnak, and a second avenue and temple site, of the same character but uncompleted, are pointed out as probably due to

Sankhkere. The Twelfth Dynasty kings removed their residence to Lisht and reverted to the Memphite type of burial. *Amer. Journ. of Sem. Lang.* xxxii, 1, reviewed *Anc. Eg.* 1916, 82, *Journal*, III, 60.

R. WEILL, having finished analysing the documents which relate to the period between the Twelfth and the Eighteenth Dynasty, endeavours to reconstruct the history and chronology. He divides the period into

- (1) The break up of the Egyptian monarchy, about 25 years.
- (2) Egypt peaceably divided; progress of the principality of Thebes under the Antefs and Sebekemsafes—about 100 years.
- (3) Wars for unification; Theban hegemony of Sebekhotep, etc., followed by the victory of Lower Egypt (Hyksos, etc.)—about 100 years.
- (4) Recovery and definite triumph of Thebes—about 25 years to the reign of Ahmosi.

This gives about 250 years in all. But WEILL is disposed to accept the 208 years or less required by the Sothic dates.

Passing on to the later documents, he brings out his view that it was a political and traditional distortion of the facts which made the victory of Thebes appear as a triumph of natives over impious foreigners. For some reason as yet unexplained Africanus extended the traditional chronology by creating new dynasties XIII and XVI, which according to WEILL ought to disappear altogether from the history. *Journ. As.* xi Sér. tome vi, 1.

SETHE, who has edited four volumes of the inscriptions of Dyn. XVIII in the *Urkunden des Agyptischen Alterthums* (of which STEINDORFF is the general editor), has now issued the first part of the *Deutsch* section containing translations with notes of the texts contained in the first volume. These extend from the reign of Amosis I to the beginning of the joint reign of Hatshepsut as senior partner with Thutmosis III.

DAHESSEY describes the coffin of Akhenaton, discovered in Mr Th. DAVIS' excavations, showing that it had been made originally for Queen Taia and the inscriptions altered. The canopic vases from the tomb he considers to represent Tutankhamon. *Bull. de l'Inst. Fr.* xii, 145.

Of the elaborate work by H. GAUTHIER, *Le Livre des rois d'Egypte*, two more volumes have appeared in the *Mémoires de l'Institut Français d'archéologie Orientale*. Tome III, in two livraisons, covers the period from Dyn. XIX to Dyn. XXIV, and Tome IV continues with the rule in Egypt of the Ethiopian Dyn. XXV and its successors in Ethiopia, Dyn. XXVI, the native and foreign rulers of the Persian period, and the Macedonian Empire of Alexander and his immediate successors.

PETRIE looks upon the queen's name *Krm* in Dyn. XXII as a title rather than a name and curiously compares the use of the Arabic *kerimeh* as a designation of a princess. *Anc. Eg.* 1916, 70.

Ed. MEYER takes the occasion of SPIEGELBERG's publication of the 'Demotic Chronicle' to review the evidence for the history of the Persian period in Egypt. *Agyptische Dokumente aus der Perserzeit* in *Sitzs. Pr. Akad.* 1915, 287.

#### GEOGRAPHY.

A very interesting report by COUYAT-BARTHOUX on work upon a topographical and archaeological map of the Isthmus of Suez. His researches go to prove that

there was no change in the relative positions of the Red Sea at Suez and the Bitter Lakes until the cutting of the Canal flooded the marshes of the latter. *Bull. de l'Inst. Eg.* Sér. v, t. viii, 129.

#### FOREIGN RELATIONS.

In *The Migrations of Early Culture* Dr Q. Elliot SMITH argues that mummification and other religious practices in various parts of the world did not originate independently at many centres but spread from one source, namely Egypt; reviewed by W. H. R. RIVERS, *Journal*, II, 256. In an article entitled *The Influence of Ancient Egyptian Civilisation in the East and in America* printed in *Bulletin of the John Rylands Library, Manchester*, III, p. 48, the same writer quotes some extraordinary parallels between Egyptian and Central American sculptured designs in connexion with architecture, especially the winged disc with serpents over the lintel of sun-temples. According to him they are links in a chain which proves that Egyptian ideas belonging to the time of the New Kingdom were spread eastward all over the world by Phoenician and post-Phoenician traders and seekers for gold, beginning in the eighth century B.C. Reviewed by H. BALFOUR, *Journal*, III, 225, and [by PETRIE], *Anc. Eg.* 1916, 141. See also Elliot SMITH's summary of this theory in *Journal Manch. Or. Soc.* 1914-15, 55.

D. G. HOGARTH, *The Ancient East*, reviewed by L. W. KING, *Journal*, II, 258.

*Aegean, Asia Minor, etc.*

HALL's *Aegean Archaeology* reviewed by NAVILLE, *Rev. Arch.* Sér. v, II, 86.

Philistine sword in the British Museum from Bêt Dâgîn near Gaza, of a type seen in the hands of Shardana warriors in Egyptian sculptures. H. R. HALL and M. BURCHARDT, *Proc. Soc. Ant.* Ser. II, xxvii, 127.

Essay on the northern peoples of the sea in the reigns of Ramesses II and Mineptah, written in 1909 by the late T. SMOLENSKI and published after his death in Cracow in 1912, now translated into French from Polish. *Ann. du Serv.* xv, 49.

J. L. MYRES, *Handbook of the Cesnola collection of Antiquities from Cyprus* reviewed by L. W. KING, *Journal*, III, 66.

In an article on Gyges HUSING refers to the Lydian king's relations with Psammetichus. *Or. Lit.-Zeitung*, xviii, 299.

LEGRAIN collects names of Dyn. XXVI compounded with the name of a goddess Shahidî, otherwise unknown, and suggests an Ionian or Carian origin for it. *Ann. du Serv.* xv, 284.

*Mesopotamia, Syria, Semites.*

KING's *A History of Babylon, from the foundation of the Monarchy till the Persian Conquest*, reviewed by H. R. HALL, *Journal*, III, 68.

A. H. GARDINER, after briefly but critically reviewing the different theories that have been advocated for the origin of the Semitic and Greek alphabets, concludes that the evidence points to the alphabet being Semitic in origin and based on acrophonic picture signs. He then brings forward a series of twelve brief non-Egyptian inscriptions written with picture signs which were found by PETRIE along with Egyptian inscriptions in and about the temple of Hathor at Serabit el Khadem in the mine-region of Sinai. In four of these, if not more, GARDINER recognises the Semitic word Ba'alat

"the Lady" written on the acrophonic principle and evidently applicable to Hathor. The inscriptions appear to be written in an alphabet of a moderate number of signs; their date must be either Dyn. XVIII or (as Dr GARDINER himself is inclined to think) the Middle Kingdom. Dr GARDINER considers that they belong not to the nomad inhabitants of Sinai but to civilised Syrians working with the Egyptians, and that their alphabet was one of several allied alphabets (based on Egyptian hieroglyphic writing) from which the "Phoenician" alphabet was ultimately derived. *Journal*, III, 1. Dr COWLEY, consulting with Prof. SAYCE, accepts GARDINER's reading of the word *B'alat* and shows that even the small and imperfect material at present available is suggestive of some further readings, so that progress in its decipherment is certain if only better examples of the script can be found, *ib.* 17. MASPERO explains the share of the two LENORMANTS in the theory of the derivation of the Phoenician alphabet from Egyptian, the senior Charles LENORMANT alone having a real claim to it, *ib.* 140.

In a valuable paper on the *Early Relations of Egypt and Asia* PEET quotes and criticises documents from the earliest times down to the end of Dyn. XII showing how the Hyksos domination is to some extent paralleled by an early Semitic invasion in the period of weakness following the Sixth Dynasty. The recovery of Egypt under the Middle Kingdom was however followed by the normal defensive policy against Asia, unlike the offensive which ensued on the retreat of the Hyksos. *Journal March. Or. Soc.* 1914-15, 27.

D. PATON has issued the first volume of *Egyptian Records of Travel in Western Asia*, consisting of a transliteration of the texts sign by sign followed by an ordinary transliteration and translation, with bibliographies, commentary, etc. The period covered is from the earliest times to the end of the Hyksos period; reviewed by HALL, *Journal*, III, 64, by Miss MURRAY, *Ant. Eg.* 1916, 81.

KNUDTZON's edition of *Die el Amarna Tafeln* is now completed by the issue of the final parts (16-17), containing remainder of the Glossary, lists of Canaanite, Egyptian and Hittite or Mitanni words, indexes of personal, geographical and divine names, and final corrections of the notes by KNUDTZON, EBELING and WEBER.

SAYCE translates one of the tablets discovered in 1914 by the German excavators at Tell el Amarna and published recently by SCHROEDER. It is remarkable as being in the style of tablets of Hittite origin and contains an important legend of the early Babylonian king Sargon of Agade. *Proc. S. Bibl. Arch.* XXXVII, 227.

Notes on the tablets of El Amarna, SCHROEDER, *Or. Lit.-Z.* XVIII, 291, 325; A is used as an abbreviation of Amarna, i.e. Ammon, in a letter of Aziru, *id. ib.* 326.

HOONACKER'S *Une Communauté Juive-Araméenne à Elephantine* reviewed by A. L. WILLIAMS, *Journal*, II, 261.

COWLEY republishes fragments of an Aramaic papyrus of the Ptolemaic period after rearranging them, and writes notes on two ostraca from Elephantine, all three having been presented by SAYCE to the Bodleian Library. *Proc. Soc. Bibl. Arch.* XXXVII, 217. Facsimile of an Aramaic ostracon of Ptolemaic age at Strassburg containing part of an account. LIDZbarski, *Eph. f. Sem. Epig.* III, 298.

Prof. NAVILLE argues that the references to Israel and Palestine on the Mineptah stela do not imply that Mineptah warred there but only that the frontier on the Syrian side, owing to various political events, was secure. *Journal*, II, 195. The

same authority suggests that the name of a "merchant Qenna" is a popular etymology for the Semitic Kana'ni in the sense of "merchant"; points out that Eg. *Theku* "Succoth" may mean "pasture" according to some African roots; and holds that Eg. *Adim* is Etham, not Edom. *Proc. Soc. Bibl. Arch.* XXXVII, 208.

HALL compares Chinese tomb sculptures belonging to the early centuries A.D. with Egyptian of an earlier period, and suggests that the Egyptian tomb-scenes may have actually influenced Chinese in those times through traders and ambassadors. *Journal*, III, 38.

#### Africa.

Eric BATES describes with illustrations some archaic graves at Marsa Matruh (Paremionium) which introduces us to a new type of hand-made pottery accompanied by stone vases of good workmanship, which must be looked upon as Ancient Libyan. Prof. PETRIE appends to the article illustrations of some rare shapes of stone vases purchased by him at different times and apparently belonging to the same civilisation. *Anc. Eg.* 1915, 158.

In his presidential *Address to the Anthropological Section* of the British Association in Sept. 1915 at Manchester Prof. C. G. SELIGMAN gave an interesting account of the Anglo-Egyptian Sudan, dealing especially with the archaeological remains in the south and the influence of Egypt on the negro and negroid tribes of Africa. He points out how little has been done as yet for the anthropological working of this vast field.

#### PHILOLOGY.

*Grammar.* MASPERO, after promising to give the result of many years of observation on matters connected with Egyptian grammar, begins an *Introduction à l'étude de la phonétique Egyptienne*, the section now published touching the consonants properly so-called, and illustrating their values by vast numbers of transcriptions in cuneiform, Hebrew, Greek, etc., and by their Coptic equivalents. *Rec. de Trav.* XXXVII, 147. The same scholar suggests that the feminine termination *t* is derived from analogy with the radical *t* of *mwt* "mother," *ib.* 16, considers the name Apries a survival into Saite times of the pronunciation *ria*, usual in Dyn. XVIII-XIX for the name of the sun-god, *ib.* 111, compares the treatment of *mu-re* in Usimare = Οσυμαρδης with that of Merwi in *Marðoulas*, *ib.* 146, and ingeniously explains the curious form *Muτepiros* of the name Menkaure by Herodotus having included in it the expression *riu-f* "his name" "called," as used by his dragoman in telling the story, *ib.* 202.

*Vocabulary.* In the *Sitzungsberichte* of the Berlin Academy for 1915, 849, Prof. ERMAN reports that the working up of the material of the Dictionary carried on by himself and GRAFOW has passed the middle point.

*Editions of Texts, etc.* Dr GARDINER's commentary on Sinuhe which appeared in instalments in the *Rec. de Trav.* from 1910 onwards has been reissued with important additions as a separate publication, *Notes on the Story of Sinuhe*.

The Papyrus Magique Harris (hieroglyphic transcript commentary and translation) by Ernst AKMAR, comprising vol. XX of *Sphinx*.

*Palaeography.* MARESTAING's *Les Ecritures Egyptiennes et l'Antiquité classique* reviewed by MASPERO, *Rec. Crit.* LXXX, 65.

PEET quotes a very striking instance of the group " (ad) explained by GARDINER to mean " interpreter," *Proc. Soc. Bibl. Arch.* XXXVII, 224, and JEQUIER explains the word-sign which expresses it as representing a costume named " (ad), *ib.* 246.

A hieroglyph occurring in the Old Kingdom decrees of Koptos, resembling ψ and interpreted as *hn* "artisan," MOSKÉ, *Comptes Rendus de l'Acad.* 1916, 140.

*Meroitic.* GRIFFITH essays to read the Meroitic numerals, comparing them with Egyptian forms (the classes of units, tens, hundreds and thousands respectively, are for the most part readily distinguishable, and several numerals can be more closely determined); points out the word *artabu* in Meroitic; identifies the symbol for 5 by comparison with demotic graffiti; discusses a family of governors of the Dodecaschoenus-frontier, who were also star-priests and astronomers, recorded in demotic and Meroitic inscriptions; points out some dates in figures on Meroitic monuments, *Journal*, III. 22; gives an account of the progress of decipherment since 1912, with a long discussion of the conflicting evidence regarding the vowel-notation; the age of the inscriptions appears to range from the First Century B.C. to the Third Century A.D. *ib.* 111.

MEINHOF's *die moderne Sprachforschung in Afrika*, published in 1910, has been translated by the Bantu scholar, Miss A. WERNER, under the title *An Introduction to the Study of African Languages*; reviewed by B. Z. S[ELIGMAN], *Man* 1916, no. 22. Miss WERNER has also written an interesting little volume, *The Language-Families of Africa*, following on the recent work of MEINHOF and WESTERMANN; five families are distinguished, the isolating Sudan languages, the agglutinative Bantu, the inflectional Hamitic, the Bushman group with clicks, and the Semitic.

Dr de Lacy O'LEARY has printed at Bristol a brochure on the *Characteristics of the Hamitic Languages*, pointing out the grammatical elements which are common to the Semitic and Hamitic.

#### RELIGION.

In reviewing the *Journal of the Manchester Egyptian and Oriental Society*, 1914-15 [PETRIE] especially criticises RHYS-DAVIES's support of G. FOUCART's view that Egyptian religion should be studied as the type of religions, on the ground that little is really known about the Egyptian religion, and that it is necessary to interpret its records by living practices and beliefs which can only be observed amongst modern nations. *Anc. Eg.* 1916, 89.

Battiscombe GUNN translates a number of documents containing the expression of a personal religion and dependence on the deity, widely different from the formal hymns and the ritual of benefiting the god and receiving benefits in return. GUNN can trace the phenomenon only in the texts of Dyn. XIX, mostly emanating from a group of artisans in the necropolis of Thebes. Contrary to the opinion of BREASTED he considers that it had little to do with the heresy of Akhenaton; it may rather represent the normal attitude of the common people at all times, finding expression however only amongst the peculiarly situated workers in the great necropolis who lived a separate life from the inhabitants of the ordinary towns and villages of Egypt. *Journal*, III. 81.

In a long and important review of N. de G. DAVIES and A. H. GARDINER'S *Tomb of Amenemhet*, MASPERO insists on the magical character throughout of the representations in the tombs and deals with the question of offerings to the dead. *Rev. Crit.* LXXX, 81.

BLACKMAN discussing the weekly libations to the dead offered by women in modern Nubia (a custom contrary to Muhammadan ideas) traces them back to decadal libations attributed to Isis at the grave of Oairis in the Graeco-Roman age at Philae, and these again to decadal offerings as far back as the Old Kingdom, *Journal*, III, 31.

DARSESY, taking the view that the Egyptians looked upon the heavens as more or less a replica of Egypt, seeks in the succession of symbolical figures or genii on the celestial maps or zodiacs of the Graeco-Roman temples to find correspondences with the deities of the great cities and nomes of Egypt from south to north. *Bulletin de l'Inst. Franc.* XII, 1.

F. W. READ describes and analyses the ancient Egyptian calendars of lucky and unlucky days. The earliest known calendar of the Twelfth Dynasty is very simple and is intended for any month, and the days are merely "bad" or "good." Two are from the New Kingdom (Dyn. XIX, XX), one being for the very unpropitious epagomenal days; these contain references to mythological legends. Lastly, there is a newly published calendar of lucky and unlucky days in the British Museum, complete for a whole year, but without annotations. *Proc. Soc. Bibl. Arch.* XXXVIII, 19.

Articles relating to Egypt in HASTINGS' *Encyclopaedia of Religion and Ethics*, vol. VIII, are *Life and Death* (Egyptian) by GARDINER, *Light and Darkness* (Egyptian) by CATICKSHANK, *Literature* (Egyptian) by BAIKIE, *Lotus* (Egyptian) by PETRIE, *Love* (Semitic and Egyptian) by PATON, *Magic* (Egyptian) by GARDINER, *Manetho* by BAIKIE, *Marriage* (Egyptian) by GRIFFITH.

In ROSCHER's *Lexikon d. Gr. Röm. Mythologie* is a very elaborate article on Tefenet by ROEDER; Tcheneomyseos at El Khargeh is treated by HÖRTER.

KERS comments on a long series of deities in the chapel of Sokari belonging to Seti's temple at Abydos; these deities are chiefly Memphis and many of them are recognisable in titles of the priests of Memphis under the Old Kingdom. They appear to be treated as forms of Ptah; their occurrence here seems to be part of the reaction against Akhenaten's monotheism displayed in Seti's temple. *Rec. de Trav.* XXXVII, 57.

On traces of the cult of Bubastis in Italy, BOUSSAC, *Rec. de Trav.* XXXVII, 28.

GARDINER writes a brief but full monograph on the god Hik, i.e. "Magic," as one of a series of deities personifying ideas, *Proc. Soc. Bibl. Arch.* XXXVII, 253; follows it up with a similar monograph on the pair of deities Hu, which he interprets not as "Taste" or "Food" but as "Authoritative utterance," and Sia "Understanding": the Great Sphinx bears the former name, *ib.* XXXVIII, 43, 83; and publishes a late *shawabti* figure bearing the curious combination of names Petchik, i.e. "Gift of Hik," born of Setyerboni, i.e. "Averting the Evil Eye," *ib.* 129.

JÉQUIER after distinguishing the hieroglyph of the panther's head *ba* from that of the lion's head *peh*, shows that the name of the god Bes is not derived from the panther skin. An examination of early instances demonstrates that Bes represented a masked dancer; so also Toueris was not an animal goddess but an elaborately got-up medicine woman. JÉQUIER also suggests that there is evidence of the soul having been represented in the Middle Kingdom by a female, and that certain foreign-looking female figures which he supposes to have come from tombs, indicate that the idea was foreign, perhaps Syrian. *Rec. de Trav.* XXXVII, 113.

Reprint of an article by SCHWEINFURTH in *Umschau*, Sept. 1913, giving reasons for identifying the animal of Seth with the Sudanese *ardvark* or ant-bear. The animal

of Seth has been the subject of many identifications, but none with such good reason as this. *Ann. du Serv.* XIII, 272.

LEGRAS treats of the worship of Mont in the neighbourhood of Thebes—the temple of Mont at Karnak; the temple and worship of Mont at Kum Madu (Medamôt, Busiris?) and at Tûd (Tuphium), a long account with many interesting documents regarding the sacred bulls, etc. *Bull. de l'Inst. Franç.* XII, 75.

Quoting classical authors, papyri and other Greek and Latin sources, TOUTAIN shows that the cult of Apis at Memphis continued until late in the fourth century, probably until Theodosius' edict abolishing paganism in 391. *Le Muséon*, 11me Sér. I, 193.

BATES proposes to derive the name of Osiris from a Libyan root meaning "old," connecting it with the North African corn-spirits who are frequently styled "old man," "grandmother," etc. *Journal*, II, 207.

A doctrinal dissertation in the University of Chicago, *Horus in the Pyramid Texts*, by T. G. ALLES, contains an elaborate classified list of references to the god; they are quoted in translation or summarised and many of them are very striking and important. This valuable conspectus terminates with an index to all the occurrences of divine names in the Pyramids.

Elaborate study of the stela of Horus on the Crocodiles with full translation, taking GOLENISCHIEFF's Metternich-stela as the standard text. MORITZ, *Rev. de l'hist. d. Rel.* LXXII, 213.

A certain wooden statuette of mother and child of the third century, thought to represent either the Virgin and Child or Isis and Horus, is neither deity nor doll, but a votive figure. C. G. E. BUNT, *Ann. Eg.* 1915, 154.

#### SCIENCE, ANTHROPOLOGICAL, ILLUSTRATIONS, ETC.

The human skulls found in the cemetery at Shurafa (Roman garrison) are discussed by D. E. DERRY in PETRIE's *Heliopolis Kafr Ammar and Shurafa*.

Notes on the neolithic Egyptians and the Ethiopians, discussing the characteristics of the "Ethiopian" race of mankind to which the predynastic Egyptians appear to have belonged. GIFFRIDA-RUGGERI, *Man*, 1916, no. 55.

The ash-tree which furnished wood and unguents, and has often been identified with cedar or acacia, is in reality juniper. DUCROS, *Ann. du Serv.* XIV, I.

A liquid found inside a small ancient vessel belonging to the Department of Antiquities at Cairo showed traces of an aromatic oil. POLLARD, *Ann. du Serv.* XIII, 253.

A summary of PETRIE's lecture on the *Metals in Ancient Egypt* (see *Journal*, II, p. 247) is printed in *Journal Manch. Or. Soc.* 1914-15, 10.

Somers CLARKE explains the method employed in splitting large granite blocks for the Aswan dam by means of wedge-holes and afterwards in trimming them. *Ann. Eg.* 1916, 110; note by Mrs BROADWOOD on the method employed by the natives in Mysore in splitting blocks and posts of granite, with remarks by PETRIE, ib. 113.

On an unusual emblem borne by a birth-goddess at Dér el Bahari, in the light of beliefs and practices connected with the umbilical cord observed by ROSCOE among the Baganda. BLACKMAN, *Journal*, III, 199.

Modern camel-stick of the form of the ancient was-sceptre [ ], apparently used by the Ma'aza tribe north of the Qussir road. SELIGMAN, *Journal*, III, 127.

## LITERATURE.

The last edition of MASPERO's *Contes populaires de l'Égypte Ancienne*, has been translated by Mrs A. S. JOHNS under the title *Popular Stories of Ancient Egypt*, with corrections and additions by the author.

BOUSSAC comments on Hdt. II, 18, according to which the sources of the Nile flowed north and south from between two mountains, Crophi and Mophi, lying between Syene and Elephantine. BISSING and others have suggested that a strong back-current, felt on the left bank for about 100 kilometres above the cataract, was the ultimate ground of this assertion, and BOUSSAC quotes an address given by the divan of Cairo to General Menou, which speaks of Shellal (the cataract or the village above it) "where the Nile has its source." *Comptes rendus de l'Acad.* 1914, 29, more fully in *Rec. de Trav.* XXXVII, 23.

In the *Sitzungsberichte* of the Berlin Academy 1915 (p. 876) SPIEGELBERG announces a discovery of great interest. A long but fragmentary demotic papyrus at Leyden has been famous for many years past as containing a version of the fable of the Lion and the Mouse. SPIEGELBERG has now found in the myth of the Sun's Eye, treated by JUNKER and SETHE, the key to the curious assemblage of philosophical conversations, fables and fragments of narrative contained in the papyrus. According to the myth, the Eye of Re, having assumed the shape of a cat or lion, departed in wrath from her father's court and from Egypt to live apart in the south-eastern desert; after a time Re, yearning for his daughter's return, despatched to her the persuasive Thoth in the form of an ape, and she was eventually brought home amid great rejoicings. In the Leyden papyrus an "Ethiopian cat" and a "little dog-ape" represent the fierce goddess and the eloquent god. Their encounters are the framework for all kinds of amusing and edifying passages. The papyrus may be dated in the first or second century A.D., and the story bears marks of having been composed in Hellenistic times. SPIEGELBERG shows reason for believing that it was intended for dramatic recitation. A new translation of the fable of the Lion and the Mouse is appended to the essay. The vocabulary of the papyrus is exceptionally rich and the edition of the text which SPIEGELBERG promises will be eagerly awaited by students of demotic.

## LAW.

MORER translates and comments on a curious inscription of the period between the Old and Middle Kingdoms, describing the creation of a property by a private person. *Comptes Rendus de l'Acad.* 1915, 368.

Miss MURRAY argues that the principle of matrilineal descent, preserved especially in royal families, originated a system of marriages within the family, not only in Dyn. XVIII and in the Ptolemaic house, but also outside Egypt in the royal house of Judah and even among the early Roman Emperors, although ancient historians generally misunderstood or at least misinterpreted the principle. *Journ. Anthr. Inst.* XLV, 307.

PEEST completes his paper on the Mayer papyri by translating the second papyrus, which contains part of a confession about the robbery of a king's tomb. *Journal*, II, 204.

## ART AND ARCHAEOLOGY.

In the Cairo Catalogue there has appeared a further instalment of MASPERO's *Sarcophages des époques Persane et Ptolémaïque* (tome 1, fasc. 2) containing descriptions of the sarcophagi of Ankhapi, Zeho son of Ahmasi and Zihorpt, and photographs of these and of the sarcophagus of the dwarf Zeho. Subsequently GAUTHIER has shown that the important sarcophagus of Zihorpt, excavated by QUIBELL at Saqqara, was originally found before 1858 by HUBER, the Austrian consul-general. Soon after its discovery the inscription was partly published by BRUGSCH under the impression that the sarcophagus had been transported to Vienna. The ushabti from the tomb, now identified by GAUTHIER, were in fact taken to Miramar and thence were recently transferred to Vienna with the rest of the Archduke's Egyptian collection. *Bull. de l'Inst. Fr.* XII, 53. These ushabti are of importance, being definitely dated to the 15th year of the last of the native kings.

PETRIE having arranged his extensive collections at University College, London, has published a brief *Handbook of Egyptian Antiquities collected by Professor Flinders Petrie* for the use of visitors to the museum.

Three more parts (3—5) of WRESZINSKI's *Atlas sur l'Alta-égyptische Kulturgeschichte* have appeared, reviewed by MÖLLEK, *OLZ*, XVII, 378, GRIFFITH, *Journal*, III, 224, and at considerable length by ERMAN in *Deutsche Literaturzeitung*, XXXVII, 325. Prof. ERMAN, it may be noted, makes complimentary reference to the efforts of the Eg. Expl. F. "Archaeological Survey" and to the splendid facsimiles of N. de G. DAVIES.

MACKAY publishes the scenes on a wall in a newly discovered tomb of Dyn. XVIII at Drah abu'l Naga, the other wall of which, bearing the name of the owner, was destroyed by the natives before it could be copied. They include the cultivation of the vine by foreign (?) gardeners and, still more interesting and important, the twisting of ropes, apparently out of papyrus fibre as mentioned by Herodotus (*Hdt.* VII, 34). The process is depicted together with the tools employed for it; and the scene is excellently illustrated by a photograph of rope-making (with palm-fibre or halfa-grass) by modern fellahin. *Journal*, III, 125.

Comparing the head of Rahotep with that of an unnamed princess whom the finder, Dr REISNER, described as negroid, PETRIE considers the latter only slightly prognathous, not negroid. *Anc. Eg.* 1916, 48.

Antiquities in the collection of the late J. H. COCHRANE, including a polished stone adze, important ushabti, etc. GRIFFITH, *Journal*, III, 193.

Hypocephalus of stuccoed linen and a fine New Kingdom ushabti of alabaster. NASH, *Proc. Soc. Bibl. Arch.* XXXVIII, 35.

Account of the GORRINGER collection, including bronze figures of Egyptian deities and bronze statuette of a Ptolemaic king attributed to Ptolemy and Lathyrus. MERCER, *Anc. Eg.* 1916, 49, cf. *ib.* 95.

WINLOCK, describing a newly opened room in the Egyptian section of the Metropolitan Museum, figures a very remarkable statuette of a man riding a horse barebacked; the horse is coloured black with white tail and thin white lines curiously disposed over the body, head and legs, reminding one of the artificial ornamentation of asses in the Nile valley at the present day. The style of the statuette shows that it belongs to the earliest period in which horses were known in Egypt, about Dyn. XVII. *Bull. Metr. Mus.* XI, 84.

*The Architecture of Ancient Egypt*, by E. BELL, is a brief description of the chief architectural monuments in historical order with numerous plans and illustrations; in an appendix is a translation of Lepsius' paper *Ueber einige ägyptische Kunstformen und ihre Entwicklung*. Reviewed by R. S. WEIR, *Journal*, III, 65.

SELIGMAN publishes an ivory comb representing Thoueris, of predynastic or early dynastic age. *Anc. Eg.* 1916, 53.

Three plaques in carnelian and sard, bearing religious designs of Amenhotp and Taa, in the collection of the Earl of CARNARVON from Thebes, finely reproduced in colour. *Journal*, III, 73.

Mrs GRENFELT publishes the scarabs in the collection of Lord GRENFELT, *Anc. Eg.* 1916, 22, those preserved at Queen's College, Oxford, which probably belonged once to BELZONI, *Journal*, II, 217, and many scarabs on which the *ka* is prominent, *Rec. de Trav.* XXXVII, 77.

[PETRIE] *Anc. Eg.* 1916, 44 and GARDINER, *Journal*, III, 146, review A. E. KNIGHT, *Amentet, an account of the Gods Amulets and Scarabs of the Ancient Egyptians*, a manual for collectors.

While the predynastic cloths from Gizeh were made of *rhamie* fibre (see *Labyrinth*, p. 6) the First Dynasty cloths from Tarkhan were of flax fibre. MINGLEY in PETRIE'S *Heliopolis Kafr Ammar and Shurafa*.

An elaborate and finely illustrated memoir on card weaving in Ancient Egypt by A. van GENNEP and G. JÉQUIER, *Le tissage aux cartons et son utilisation décorative dans l'Egypte ancienne*, reviewed by [PETRIE] *Anc. Eg.* 1916, 139 and by GRIFFITH, *Journal*, III, 223.

In a fine volume *Les portraits d'Antinoë au Musée Guimet*, E. GUIMET gives a brief account of the annual growth of the collections from Antinoë and a description of the portraits moulded in plaster and painted on wood and linen. The photographic illustrations, both plain and coloured, are numerous, and beside the portraits figure magnificent embroideries in wool and silk and other remains.

A. REINACH finishes his article on *Portraits gréco-Égyptiens*, in the course of which he cites some portraits on wood from Theadelphia which date from the period of Diocletian. *Rev. Arch.* v Sér. t. II, 1.

Supplementary note towards interpretation of the stamped mud balls from Abydos as symbolising contracts for the upkeep of the tomb. PEET, *Journal*, II, 253.

Four clay balls containing human hair from a grave at Kahun of about Dyn. XX. Miss CROMPTON, *Journal*, III, 128.

A propos of PETRIE's *Arts and Crafts*, p. 140, VERNIER makes the interesting statement that in the jewellery of the First and Twelfth Dynasties glass was employed independently of any glazing base, occurring as imitation turquoise of a more lasting character than the natural material; and while admitting that most of the work is of the nature of *repoussé*, he states that the principal vase is *repoussé*, and that the bosses decorating the others have been moulded and then applied; also that contrary to PETRIE's assertion (pp. 106-7) drawn wire was frequently employed in the early jewellery. *Bull. de l'Inst. Fr.* XII, 35.

Fragments of flutes from Meroë, of the *bombyc* type, invented at Thebes in Boeotia about 300 B.C. They were made of bronze and ivory in joints with revolving rings to shut off the holes of an inner tube. T. L. SOUTHGATE, *Journal Hell. Soc.* XXXV, 12.

Leaden tokens from Memphis, classified as (1) fraudulent imitations of Ptolemaic coins, (2) Roman token currency, (3) probably as the last but of different style for Alexandria only; also (4) seal impressions, (5) amulets. MILNE, *Anc. Eg.* 1915, 107.

Ptolemaic seal impressions in clay from Edfu in the Ontario Museum, of Greek type. MILNE, *Journal Hell. Soc.* XXXVI, 87; the corresponding Egyptian specimens having been published by Miss MURRAY in *Zeits. f. aeg. Spr.* for 1907.

Graeco-Roman bronze head from Xois, in the Museum of Alexandria, with notes by OFFORD and Sir H. H. JOHNSTON. *Anc. Eg.* 1915, 144.

On the mint at Alexandria in the reign of Diocletian. MILNE, *Journal*, III, 207.

BRÉCIA'S *Alexandria ad Aegyptum, Guide de la Ville ancienne et moderne et du Musée Gréco-Romain*, reviewed *Anc. Eg.* 1915, 188.

T. E. PEET describes *Primitive Stone buildings in Sinai*—(1) the *nauamis* or beehive tombs in which remains of prehistoric character have been found, (2) the tomb circles generally enclosing cists, as to the contents of which very little information is forthcoming, and (3) hut-circles. *Man.* 1915, no. 87.

#### PERSONAL.

Egyptology has lost its most commanding figure in Gaston MASPERO, from 1881 to 1886 and again from 1889 to 1914 Director-General of the Service des Antiquités de l'Égypte, in Paris holder of the chair which was created for CHAMPOUILLON at the Collège de France, and finally Perpetual Secretary of the Académie des Inscriptions et Belles-Lettres. Born in 1846, Gaston Camille Charles MASPERO began to produce Egyptological works in 1867, and continued without cessation in spite of his heavy administrative duties till his last days. He died at a sitting of the Académie on June 30, 1916. Obituary notices have appeared in *Journal*, III, 221 and by F. LEGGE, *Proc. Soc. Bibl. Arch.* XXXVIII, 141, and C. LAGIER, *Etudes des Pères de la compagnie de Jésus* 20 Sept. 1916, long and biographical; see also the interesting notice in the New York *Nation* Aug. 24, 1916 by Professor BARSTED.

The list of victims of the war has been lengthened by several names known in Egyptology:—

*English.* James DIXON, who since 1908 had worked in Egypt as draughtsman and excavator, killed in Gallipoli Aug. 10, 1914, aged 24. *Journal*, II, 254, III, 48.

*French.* Adolf J. REINACH, a young archaeologist of wide range and ability, who had paid special attention to Egypt, missing since August 1914; MM. SOTTAS and WEILL have been wounded, the former very severely; MM. LACAU, LEFEVRE and MONTEL are with the armies.

*German.* Max BURCHARDT, an Egyptologist, whose gifts and studies fitted him especially for investigating the connexions of Ancient Egypt with surrounding countries, born in 1885, was severely wounded and taken prisoner in France on 17 September, 1914, and died a few days afterwards. *Amtliche Berichte Berlin*, XXXVI, 240 (in August, 1915); Dr Möller, Directorial assistant in the Egyptian Department, and TISCHER, the famous restorer of papyri, have been called to the colours (*ib.*).

In Nov. 1915, at the annual public meeting of the Académie des Inscriptions et Belles-Lettres, M. MASPERO spoke an eloquent tribute to his predecessor in the Secretoryship, Georges PERROT, well known to Egyptologists as joint author with Charles CHIPPEZ

of the volume on Egyptian art in his *Histoire de l'Art dans l'Antiquité*. Born in 1832, PERROT was amongst the early students of the French school at Athens. Accomplished both as an orator and as a writer he did much, not only to carry forward the study of archaeology by his personal researches, but also to popularise the subject both amongst scholars and amongst the reading public of France. He died 30 June, 1914. *Notice sur la vie et les travaux de M. Georges Perrot* in *Comptes Rendus de l'Acad.* 1915, 453. Also S. REINACH in *Rev. Arch.* IV Sér. xxiv, 121. Cf. *Anc. Eg.* 1916, 93.

Brief obituary notice of Jean MASPERO by S. REINACH. *Rev. Arch.* v Sér. i, 178. A. CHUQUET, *Rev. Crit.* LXXX, 49.

## NOTES AND NEWS

THE Hon. Sec. of the Fund, Mr H. R. HALL, has been graded as Staff Lieutenant, First Class. Lieut. T. E. PEET, after a happily not very serious attack of typhoid, has returned to England on sick leave.

This season's Fund lectures will be delivered at the rooms of the Royal Society by Mr A. M. BLACKMAN, the subject being "The Relations of the Living with the Dead in Ancient Egypt." The first lecture will take place in January; the exact date will be communicated to Members later.

We are requested to call attention to the annual prize which Lord CROMER has founded, in connection with the British Academy, for the encouragement of Greek studies. The prize, which is to be known as the Cromer Greek Prize, will be awarded to the author of the best essay on any subject connected with the language, history, art, literature or philosophy of Ancient Greece; its value is £40 and the first award will be made before the end of 1917. Competition is open to all British subjects of either sex who will be under twenty-six years of age on 1 Oct. 1917. Enquiries should be addressed to "The Secretary of the British Academy, Burlington House, Piccadilly, London, W."

Mr H. L. BELL writes: "In my Bibliography of Graeco-Roman Egypt for this year it was stated (page 138) that the *Byzantinische Zeitschrift* has ceased to appear. Prof. HEISENBERG asks me to make it known among English scholars that he hopes shortly to recommence the publication of this periodical. He is now back from the front, and it is hoped that difficulties as to the staff of the press will soon be surmounted. The news will no doubt be received with pleasure by scholars in this country interested in Byzantine studies."

## NOTICES OF RECENT PUBLICATIONS

*Von Zahlen und Zahlwörtern bei den alten Ägyptern, und was für andere Völker und Sprachen daraus zu lernen ist. Ein Beitrag zur Geschichte von Rechenkunst und Sprache.* Von KURT SETHE. Strassburg, Karl J. Trübner, 1916. Pp. viii+147. Three plates.

Almost every branch of ancient Egyptian life which is tributary to the broad stream of general human culture still awaits comprehensive treatment by someone who shall combine the two qualifications necessary to the task: a sound grasp of the subject in general, viewed historically, and authoritative first-hand control of the native material. In most cases it is true indeed that the time is not yet ripe for this, and that for a long while to come the organised and methodical collecting of accurate data, and the working-out of these within their own limits in special studies, must be proceeded with before a general treatment of the subject can be fruitful.

As with the religion, astronomy, medicine, arts and crafts of ancient Egypt (to name a few examples), so with its mathematics. Very important work has been done in this province in the past, notably by EISENHORN in his publication of the Rhind Mathematical Papyrus, by GARRITSEN in his articles in the *Proceedings* and his edition of the Kahun Papyri, by CASTON in the first volume of his monumental *Geschichte der Mathematik*, by HÜLSEN in his *Elemente der ägyptischen Teilungsrechnungen*, by SPERBER in his publications of account papyri. These scholars have cleared up a multitude of obscurities in a very difficult study, and through their labours the main outlines of Egyptian mathematics have been laid bare so far as has been possible from the none too copious material at their disposal. But no one had made a thorough examination of the arithmetical elements—numeral signs and terms, and the conceptions underlying them—which are the foundations whereon mathematical theory and practice rest. And until this had been done by a really competent scholar any wide handling of the subject as a whole would have been premature.

Professor SETHE has now accomplished this task in the book before us, published as a volume of the Writings of the Strassburg Scientific Society.

But he has gone further. To have had from so great an authority no more than a detailed account of Egyptian numbers and number-words, satisfying the requirements of philology, semantics, and palaeography, would have been a most welcome accession to our science; but the author, owing to the compactness, so to speak, of his subject, has been able to deal with it comparatively, and has step by step adduced illustrative parallels, not only from the civilised peoples of ancient and modern times, but from primitive and illiterate races. In fact he has done what will be done one day for the larger subjects mentioned above. And in this he has marked an epoch: for the first time an Egyptologist of the very front rank has dealt with a part of his science not merely as a special contribution to Egyptology, but with a view to the light it throws upon similar phenomena among other peoples and languages. Because many of the conclusions he arrives at affect Indo-Germanic and Semitic number-lore, his book must be taken into account by whoever wishes in future to examine the origin and evolution of one of the most fascinating and curious fields of universal culture—the art of ciphering.

In his opening chapter, on the Egyptian number-system, the author states that although the Egyptians were no more than other nations able to escape the thralldom of the far from perfect decimal grouping of units, which will cling to man as long as he has five fingers on each hand (six would vastly improve his arithmetic), yet they brought it to the highest point of practical efficiency possible before the Indian inventions of zero and value by position. With their seven signs, for 1, 10 and the

powers of 10 to 1,000,000, they expressed simply and clearly quantities which the Greeks and Hebrews could not express with their cumbersome alphabetic notation of more than thrice the number of signs; while the first four of their numerals could do as much as seven of the Roman. The Phoenicians, however, had a system somewhat similar to that of the Egyptians, and so also, strange to say, had the earlier Greeks, who abandoned the Herodianic numerals for a notation perhaps unsurpassed among Aryan races for clumsiness and difficulty.

When dealing in detail with the symbols employed, Professor SETHE describes that representing 1 as "a simple vertical stroke |," ignoring the fact that in carefully executed inscriptions its characteristic form is  rather than |. Either the sign is a stylisation of the simple stroke—which we have no grounds for assuming; or else it is, like every other hieroglyph known to us, a representation of an actual object; in this case one oblong in contour, thicker at the ends than in the middle. The only explanation offered up to now, that it depicts the wooden dovetail of that shape with which Egyptian masons fastened blocks of stone upon each other, seems too far-fetched to be considered seriously. The object must have had some numeric significance. On another page the author suggests that the "stroke" originally stood for a finger: since a finger  is the symbol for "10,000,"  may possibly be the thumb, which suits better for shape than any other of the digits, and which at one time might well have been used in gesticulation to denote "one." But Professor SETHE quotes the saying of the Persian Orontes from Suidas that the little finger signifies both 1 and 10,000: as analogies to this may be mentioned the use of  not only for "cubit," but for 100 square cubits ("cubit of land") and of  for a very small measure ( $\frac{1}{100}$  cubit); see GRIFFITH, *Proceedings* xiv, p. 405) as well as for 100 linear cubits. The hieroglyph  is doubtless the little finger, of which the bent top-joint is characteristic. The reviewer ventures to suggest that  represents a small object of bone or wood used in some kind of tally or aid to reckoning.

All the other symbols the author considers to have been chosen solely on phonetic grounds, and in the following chapter, on Cardinal Numbers, he points out that the names for the highest numerals (excepting 10,000) were originally words meaning no more than "a multitude," "a vast, boundless number," specialised by the growing needs of arithmetic terms in the meanings with which we already find them in the First Dynasty. Thus, , *hh*, "million" is a representation of the god *Hh*, "Infinite," whose name is derived in turn from the root *hh* (*hibt*) "to seek" (*zil*, without finding). The tadpole , "100,000," was called "the teeming," *hh*, a root existing in Arabic in the meaning "multitude," "to flow abundantly." *M*, "1,000," is more difficult; neither "measure thou" nor "lotus" provides a very plausible etymology. Of the sportive grouping in the Old Kingdom of "2,000," "3,000," into a single hieroglyph showing two or three lotuses growing from a single root or bud<sup>1</sup>, Professor SETHE thinks he sees a survival in the hieratic forms of the thousands-series, although it is surely difficult to detect in the construction of those forms principles different from those underlying the other hieratic numerals, or hieratic writing generally. On the subject of these high numbers the author, citing the introduction in Graeco-Roman times of *Q* in the series between  and , as evidence that the old value of the last was forgotten, seems to regard *Q* "ring" as a meaningless term. But does not the material collected by BURGESS in his *Thesaurus* tend to show that in some cases at least the scribes of this late period, desiring to lengthen the series, and anxious at the same time not to give the god  a subordinate place in so doing, adopted *Q* for "million," and gave *hh* either its original meaning of "infinity" or a new value "ten million"?

The comparison made between the Egyptian and Semitic cardinal number-words from "one" to

<sup>1</sup> See this JOTUSKA, vol. ii, p. 73, fig. 4, for a very early example of this tendency.

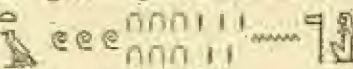
"nine" is of importance. Professor SIEGMUND believes that of the whole series only the words for "three" (*ḥmt*: *ḥt*) are not cognate in the two languages; he even contrives to assimilate *ḥd : ṣb*, "four," with the help of Hamitic forms. It may be suggested that the Egyptian for "six," *ḥt*, which is not very easily compared with the Semitic *ṣdg*, is an old dual, related to Semitic *dt*, "three," the singular having been replaced (perhaps to avoid confusion) by a new word *ḥwt*. And it may also be noted as a curious fact, the significance of which is at present obscure, that of those Egyptian numeral words below "hundred" which are certainly not related to their Semitic equivalents, and hence may be assumed to be of native origin, two out of three, *ḥwt*, "three" and *niḥbt*, "thirty"—as well as *w*, "one" (which by no means resembles the general Semitic form: *ḥd*)—all mean or originally meant also some kind of spear or harpoon<sup>1</sup>.

The supposed vestiges of non-decimal reckoning in Egyptian vanish under Professor SIEGMUND's examination. The Coptic circumlocutions "fifty-thirty" and "four-score" possibly indicate the beginning of a distaste for the use of the higher ten-numbers such as is seen in French, and in any case have no historical support (the former may be an over-literal rendering of *lxxx*). The duodecimal division of the hours was, the author thinks, perhaps due to Babylonian influence; while the still prevalent error of regarding *ḥwt* as meaning two 60-year periods (from a misreading by HINCKES of a damaged passage in the Turin Royal Papyrus) is definitely dispelled. It means no more than "a long time; an age," is used for anything between thirty years and eternity, and is probably not even a dual.

One of the most interesting sections of the book is that dealing with "Round or Sacred Numbers," for which a considerable number of references are collected. 4 and 7 of course play the chief part. The former was the great favourite in early times, and numerous instances of it (and of its multiples 8 and 16) occur in the Pyramid Texts; but after the Old Kingdom it becomes altogether overshadowed by 7 and its multiples, for which but four references out of seventy-one go back to the Pyramids. 3 occurs as a sacred number only in demotic magical papyri and Graeco-Roman texts; but its square 9 is not infrequent, deriving doubtless from the Enneads and the "Nine Bows." In view of its importance as a unit-group, 10 is curiously rare; only half-a-dozen instances are given. To the two examples of 200 as round number may be added the 200 head of slaves which Pharaoh presented to the shipwrecked sailor (Dr GARDINER's new reading).

Philologically, the section on the Construction of the Cardinals is of great importance. Professor SIEGMUND makes it clear that with the exception of 1 and 2, which are used adjectivally (it is a pity that the syntax of *w*, "one" is quite ignored), the cardinals functioned at all periods as substantives, and that in the language they always preceded the numbered noun, which followed in the genitive or partitive (possibly in apposition also, in the oldest period). The very common inversion of this order in the writing is due to the influence of the account-style, which always set forth the numbered object followed by the numeral in figures. Thus already in the Old Kingdom we find *ḥt ipw* (read *ḥt w ipw ḥt w*), "those seven spirits"; *t 1000-k* (read *ḥt-k n t*), "thy thousand of leaves."<sup>2</sup> The same influence is shown in the frequent writing of the numbered article as a singular in the Old and Middle Kingdoms; it was doubtless always spoken as a plural in those periods, and was only in the New Kingdom really reduced to the singular and conceived as a mere expression of category.

In dealing with the higher cardinals in the New Kingdom, Professor SIEGMUND considers that where an enumeration is preceded by the definite article the latter agrees in gender with the object numbered.

That this is not however always the case is shown in  "the 365 gods," where the gender of *ḥwt* (*ḥt*): "hundred" determines that of the article.

The chapter on Fractions handles in a masterly way the most obscure region of Egyptian number-conceptions. It seems sufficiently strange to us that the only fractions ever used in calculations were "single fractions" representing a single part (e.g.,  $\frac{1}{2}$ ,  $\frac{1}{3}$ , etc.) and one "complementary fraction" (i.e., difference between a single fraction and unity), namely  $\frac{1}{2}$ , so that  $\frac{1}{2}$ , for instance, was only known as

<sup>1</sup> The determinative of *niḥbt* in Pyr. 1212a<sup>23</sup> is identical with the word-sign for *w*, "one."

<sup>2</sup> The influence of the list-style is doubtless not confined to numeral expressions. For if 300 is to be read *ḥwt-ḥwt-n* (*ḥt*), "three hundred of asses," should not *ḥwt-hd ṣbt* be read *ḥwt-n ḥd ṣbt* "or scrophagus of white stone?"

<sup>3</sup> Pap. Turin 187, 2; I have to thank Dr GARDINER for this example.

$\frac{1}{2}$ ,  $\frac{1}{3}$ ,  $\frac{1}{4}$  as  $\frac{1}{2}\frac{1}{3}$ ,  $\frac{1}{2}$  as  $\frac{1}{2}+\frac{1}{2}$ ; and yet, as the author points out, this cumbersome method was common to the whole of antiquity with the exception of the Indians, and was not superseded in the West even among mathematicians before the Middle Ages. When what we know as  $\frac{1}{2}$  was expressed as  $\frac{1}{2}+\frac{1}{2}+\frac{1}{2}+\frac{1}{2}+\frac{1}{2}$ , tables of fractions were obviously necessary to time-saving in calculation; and several of these are known, the earliest coming from Kahun.

Professor SERRE thinks that the subdivisions of the *arura*, the Egyptian acre, which form, by successive halving, a series  $\frac{1}{2}$ ,  $\frac{1}{4}$ ,  $\frac{1}{8}$ ,  $\frac{1}{16}$ ,  $\frac{1}{32}$ , are old terms once used as abstract fractions of unity, but early replaced by another series—the fractions as we find them in the historic period—and relegated to a specialised use in land-measurement. But the evidence brought forward in support of this theory is not very solid, and reduces itself to the fact that the same sign  $\times$  is used in hieratic for “ $\frac{1}{2}$ ” (*re-fib*), and “ $\frac{1}{2}$ -*arura*” (*haib*: *haip*). Now, as Professor SERRE tells us,  $\frac{1}{2}$  was evidently regarded at one time as the “fraction” *par excellence*; for this is its name as  $\frac{1}{2}$ -*arura*, from the root *haib*, which means both “to break up” and “to calculate” (in the latter sense perhaps because division was considered the characteristic of calculation as contrasted with mere counting); while its symbol  $\times$  is the word-sign (two halves of a broken stick) of the verb *haib*. Hence it may be taken as most likely that *haib* was the older name for  $\frac{1}{2}$  as well as for the  $\frac{1}{2}$ -*arura*; but this proves nothing for the other fractions, which have entirely different names and symbols in the two series.

The general term for “fraction” was, however, *r̄l*: “mouth, part,” which was used in four different ways: corresponding to the modern denominator in *r̄l*, the term for  $\frac{1}{10}$  of the *heti*-bushel, and in *r̄l 1*: “one-third”; corresponding to the modern numerator in fractions less than  $\frac{1}{2}$ , e.g., *r̄l 10*, “one-tenth,” and in the complementary fractions *r̄l 2*, “two-thirds,” *r̄l 3*, “three-quarters.” The last usage, of an implied denominator (to speak in modern terms) higher by one than the number mentioned, not only has widespread parallels among other ancient nations, but in England at least survived the introduction of totally new conceptions of fractional quantities, and we can still say “the barrel is three parts full”; “the constituency was five parts Conservative, the rest Radical.” In conjunction with this must be taken the fact established by Professor SERRE that in the third usage (*r̄l 10*), where *r̄l* is equivalent in our notation to the constant numerator  $\frac{1}{10}$  in single fractions, the variable “denominator” following is not, as usually supposed, in the genitive (“part of ten”), but is a cardinal used in a quasi-ordinal sense (“part No. 10”). For by these two ways of expressing single and complementary fractions the Egyptians show themselves to be in agreement with the rest of antiquity in their conception of fractions. This conception is admirably dealt with by the author, and may be restated in psychological rather than formal terms as follows:—

Before expressing in words the idea which we symbolise by  $\frac{1}{5}$ , the whole object was thought of as lying divided in five equal parts; of these, “four parts” (the usual term for  $\frac{4}{5}$  in several languages) were disregarded and the remaining “fifth part” (the usual name for  $\frac{1}{5}$ ) was spoken of. If, on the other hand, it was desired to express what we call  $\frac{1}{5}$ , then the last of the series of fragments, the now negligible “fifth part,” was suppressed and the first “four parts” mentioned. Thus it is clear that the simple fraction spoken of was conceived as the last in the row of fragments, namely, “the part that is left when the thing is divided into five (equal) parts, and four are taken away”; so that to speak, as we do, of “two-sevenths,” “five-ninths” and of a complementary fraction as “four-fifths,” is etymologically nonsense. The expression is only made possible by our forgetting the original conception, and feeling that as all the fragments in the row of, say, seven are equal, the name “seventh” which belongs to the last may be fairly used for any or all of them<sup>4</sup>. And only when this abuse of language was tolerated did it become possible to use one fraction only when the ancients often needed seven or eight.

Thus it is that into the names of the ancient single fractions (the Arabic special *futba*-form excepted), and their modern descendants, ordinal ideas generally enter; and this brings Professor SERRE by an easy transition to his next chapter, on Ordinal Numbers.

We have already seen that a cardinal may follow a noun with an ordinal connotation; the Egyptian wrote and said *r̄l 10*, “part 10,” *rp 3*, “time 3,” *het-sp 6*, “year 6,” just as we say “Class Four,” “chapter Three,” “Jan. vi,” “the year 1916.” But wherever this construction occurs we feel that the cardinal

<sup>4</sup> Curiously enough, this specialised modern usage reverts to something extremely like the primitive generic meaning of the ordinals, discussed later in the book, namely “one of [a group of] seven” etc.

is used because the function of the number is not so much to indicate order in a series as to give a specific name to the object in question (so also in our "Section D"). Thus it can scarcely rank as a form aiming primarily at the expression of an ordinal, although by its very nature it implies this in effect.

Of the forms and constructions specially denoting the ordinal idea, we can trace four in Egyptian (various words for "first" and "second" excepted). Of these Professor SETHE deals first with the commonest, the locution *mā X*, "that which fills X," for "the Xth." This section of the book, however, is not perhaps handled with quite that logical clarity which is characteristic of the author's work in general, and it seems worth while to attempt to arrange in a somewhat different way the valuable data given in it.

The verb *mā* has the general meaning "to fill," and like its English equivalent is used when the subject fills with itself the object of the verb ("it fills the cup"), when the subject fills the object with something else ("he fills the cup"), and in an intransitive-passive sense ("the cup fills"). Of these only the first meaning concerns us here.

But even in this restricted sense the word covers various connotations which it is important to distinguish. For we use the same word (A) when the whole subject "fills" the whole content of the object (as: "the soldiers filled the train"); (B) when the whole subject "fills" the object in occupying only a part of its content, the remainder being already occupied or filled (as: "a spoonful more will fill the cup"); (C) when the subject "fills" the object with only a part of itself (as: "the sea filled the ship"). In the fourth possibility—when a part of the subject fills an object already partly full—we have to vary the term; we say: "the river filled up the lake."

The verb *mā* also is employed with the first three of these connotations (context and usage deciding which is implied), and in a more extensive and symbolical use than in English. Let us take examples of each. A (whole fills whole); a piece of land is said to "fill," or comprise, 1,000 *aruræ*; payment of a debt or price "fills," or satisfies, a creditor (psychologically identified with the amount). B (whole fills part); a given day of the month "fills," or completes, 5 days that we have been in this place; a certain quantity "fills," or completes, a total. C (part fills whole); the entire priesthood of a temple is told; "the number of 20 priests is what you fill (or muster) for one *phylæ*."

Such uses of the verb "to fill" offer no difficulty, and have parallels in most languages. Quite as natural as the rest is the second instance given under B, when the idea of the whole of the subject filling what is already partly full is applied to an amount completing a total. This usage is quite common, especially in the later writings, but here again we are obliged to differentiate. Although the phrase employed<sup>1</sup> does not vary, the purpose with which it is introduced varies in a manner that is worth attention.

A testator devises an inheritance of four villages: these are detailed, and to the last of them is added *r mā dml 4*, "completing four villages." We might express the same idea in a rather different way "A, B, C and, to complete the four, D." In both languages the idea is of the last village "filling" the quantity "4 villages," concretely conceived as already partly filled by the first three. Again, a deed conveys  $\frac{2}{3}$  measures of land which form the northern part of a plot of 10 whereof the vendor has previously sold  $\frac{7}{8}$  to somebody else, "completing the 10 measures." Here we find the repetition of the total strange, and should probably say that of the 10 measures the vendor had sold "the remaining  $\frac{7}{8}$ ." In both cases the introduction of the total at the end seems to be an instance of that tautological style from which the legal mind is rarely averse.

It is not necessary that the total be already mentioned, of course; thus, one *arura* of land to be sold is stated to be bounded on the south by 2 *aruræ* previously sold to the same person, "completing three *aruræ*." Here we feel that what little significance the total has is mainly as a check upon the preceding figures, reminding us of the modern legal writing, "3 (three) acres."

Again, demotic deeds, when citing two documents, sometimes describe the latter of them as "completing 2 writings"; and the tomb-inspectors of the Abbott Papyrus, having reported on the pyramid of a King Tac, add, when they mention another king of the same name, "completing two

<sup>1</sup> *r mā X*, which means literally "in order to fill or complete X," but which has in effect only the vague purport of "filling, completing X" (compare *r dd*, "saying," literally "in order to say") and expresses purpose no more than does our "to complete" in: "I found the father, mother, and son at home, and, to complete the family, the daughter came in just before I left."

Kings *Tat*." Here the total is also a check, but of quite another kind: to show that there really are two; to prevent the mention of the latter one being mistaken for a reference to the former. Now in this distinctive use of the total we have virtually an indefinite ordinal expression: "being a second writing," "being a second King *Tat*," would be equally close to the sense of the original. For whether we say "this makes three earthquakes to-day," or "this is the third earthquake to-day," we mean exactly the same thing.

In two other cases the phrase (following verba in both) may also be translated in either way, but more idiomatically as an indefinite ordinal. A Prince of Thebes spoke in the court of Justice, and later spoke *r mḥ md̄t 2t*, "completing two speeches" or better "a second speech." So also Setne fought with the snake, and another day fought with it *r mḥ ep 2*, "a second time." Note that in the latter case the total "completed" is only a relative total *ad hoc*, struck at this point solely to intimate that this was a second fight; for on another day Setne fought a third time.

In all these examples the constituent elements of the total are put before us: all of the four villages, both parts of the ground-plots, both of the two kings, are presented. But in saying that something completes a total, merely in order to define its place in a series, we can convey this meaning equally well whether the remaining or rather preceding members of the series are mentioned or not. A village "completing four villages" will always be a fourth village, in any connection; and if we wish not merely incidentally but primarily to define a given thing as occupying a certain place in a series of equal things, all we need do is to substitute for the vague *r mḥ* the defining form, the participle (in the imperfect active), and to say *dml m̄ dml 4*, "the village which completes 4 villages." And, assuming it will always be understood that the numeral counts units of the same category with the thing defined, we may omit the repetition of the latter, and define the village more shortly as *m̄ 4*, "that which completes 4," "the fourth." And this is of course the convenient ordinal construction which was regularly used in the New Kingdom and onwards of numbers above 10 (which, as in Semitic, had no true ordinal forms), and which ultimately even supplanted the ordinals of 2 to 9<sup>1</sup>. Taking into account the very special connotations which accompany it, the phrase *m̄ 10* may be translated: "that which [with the preceding units of its series] fills [a total of] ten [units of the same category with itself]."

This ordinal expression is apparently always attached to a substantive before the Coptic period (in the latter it sometimes occurs independently: *tm̄q-m̄wnt*, "the third"); but it can be connected with it in various ways. The oldest construction, the normal one during the New Kingdom, placed it adjectively after the substantive: *rap̄ m̄t 10*, "the tenth year." This survives into demotic, but seems not to occur in Coptic. In the Nineteenth Dynasty and in demotic we find an alternative form *m̄t rap̄ 10*, apparently a writing (influenced by the Late Egyptian *rap̄ 10* for *10 n rap̄*, "ten years") for *m̄t 10 n rap̄*, corresponding to the normal Coptic form *tm̄q-m̄wnt ḥpm̄n*. Two explanations of it are possible. It might be analysed as *m̄t*, "that which fills," *10 n rap̄*, "ten years"; in support of which *tm̄q* *cn̄-cn̄at*, *tm̄q ḥpm̄n cn̄te* could be invoked. But it seems much more natural to assume that *m̄t-10* was regarded as a single ordinal adjective, and that hence it conformed with the general tendency of words functioning adjectivally to come before their substantives, which are then attached by the indirect genitive and decline in force to a mere expression of category (i.e., "tenth of [the category] year." Compare *tp̄w: n̄t n̄ tp̄*, "this sun"; *mt w̄: nos ḥpm̄n*, "great man"; *pr w̄: w̄ n̄ pr*, "one house"; *ap̄ ḥpm̄n: ḥpm̄n n̄ ap̄*, "third time"; and expressions of the type *hw̄ n̄ r̄d̄t*, "an panvre diable de blanchisseur"). This seems to be confirmed by the Coptic forms *tm̄q-cn̄te ḥpm̄n* (for to detach *cn̄te ḥpm̄n* is an impossibility), and *tm̄q-m̄wnt*, "the third," *tm̄q-cn̄te*, "the seventh," used absolutely. Perhaps we may assume that the latter explanation holds good for the origin of the form *m̄t 10 n rap̄*, which was subsequently, perhaps, interpreted according to the former explanation also, and was accordingly sometimes rearranged when the irregular adjectival numeral "two" was involved.

Yet another construction appears in demotic: *pt hrw n̄ m̄ 2*, "the second day"; this also survives into Coptic, compare *hm̄t ḥm̄q-cn̄at*, "the second death." Here the ordinal adjective appears to be treated, as so often elsewhere, as an abstract ("secondness") attached by the indirect genitive, a form exactly corresponding to *hp̄m̄t ḥm̄q-cn̄at*, "the good man."

<sup>1</sup> In the Ptolemaic period even "first" was sometimes rather absurdly rendered, in an analogous formation, by *m̄ 1*, "that which completes 1."

So far, the ordinal expression  $m\dot{b}$  X has not been found in a period earlier than the New Kingdom, but Professor SETHE believes he has come upon an example of the Fifth Dynasty, in a superscription:

"bringing  by the *Comedak N.N.*" written over a relief in which the village headman is

followed by other men bearing produce to be registered by a clerk. The group left in hieroglyphs above is translated "thousandth" by the author, but this is open to serious objections. For the only meaning that "thousandth" could have in this context would be, what Professor SETHE claims it is, "thousandth part." But the ordinals in  $m\dot{b}$  (of which this is supposed to be a substantivised feminine) not only never stand alone in an independent form until their original meaning is lost, in the Coptic period; but in no other case are they used to denote fractions. Indeed it is *a priori* hardly conceivable that they should be so used, since, as we have seen, the single fraction, so far from being regarded as "that which fills up" unity, is conceived as what is left of unity when all the other equal parts are abstracted. Also from the standpoint of general sense, the interpretation is unsatisfactory: 1 in 1000 (say, a farthing in the pound of our money) seems a contribution far too trifling to be worth levying in a village, especially in the East, or of commemorating in a tomb if it were collected. Is it out of the question to assume that in LERSIUS' publication  is an error for , and that we should read: "bringing [the produce of] the North by, etc."?

The next form of ordinal expression dealt with is also a circumlocution, the rare one in  $m\dot{b}$ , found a few times in Late Egyptian: the construction is *pt* (or *tt*)  $m\dot{b}$  X. This Professor SETHE considers to be an ellipse for *pt* (or *tt*)  $m\dot{b}$  *fr m\dot{b}* X, "that which is filling X," namely the  $m\dot{b}$  X construction expressed in five words instead of two, and abbreviated in consequence. But Dr GARDINER has observed several New Kingdom examples of  $m\dot{b}$  used as a genitive exponent (whence apparently the Coptic genitive *tre-*), and that being the case it seems simpler to regard *pt m\dot{b} t*, for example, as meaning "that (*pt*) of six"—which is just what ordinal forms do signify in most languages, as we shall see, and which is most exactly paralleled in the cognate Berber, cited by Professor SETHE, where "third," for instance, is *wa-n-karadl*, literally "that-of-three."

Under the heading, "The Ordinal expressed by the Participle of a Number-verb," the author treats of an isolated archaic word *ȝmt*, identical in spelling with the cardinal "three." Five occurrences of it are known, all in the Old Kingdom; it is probably a participle of the rare verb *ȝmt*, "to make (do) or be three," thus resembling in form the Semitic ordinals. It functions only as an independent substantive, with a meaning something like "companion" (see below for other instances of this use of ordinals). But the embarrassing thing is that in three of its five occurrences somebody is the *ȝmt* of some one else—not of two other persons, which one might well think would be the only possible sense in which it could be used. Now Professor SETHE takes this as evidence that the word had come to mean "companion" only, and that already in the Old Kingdom any consciousness of its original meaning of "third" had disappeared. But, with the root flourishing in such forms as *ȝmtw*, "three," *ȝmt*: "to make three," *ȝmt*: "threshold," *ȝmtw*; "third," this seems highly unlikely: moreover wherever it is used in the Pyramids the earliest parallel text has the variant *ȝmtnw*; "third"—the usual ordinal.

The following remarks may be offered towards a solution of the problem. It is to be noted, firstly, that whenever it is used for the "companion" of one other person, that person is a brother or sister<sup>1</sup>. Now the Egyptian for the "brother" or "sister" or someone is his "second"; and the common term for the "companion" or "associate" of someone is also his "second".<sup>2</sup> But to say "the second of his second" with the intended meaning "the companion of his brother" would be not only hopelessly obscure, but also illogical: for if A is already thought of as "second" (i.e., "brother") to "one," B, then someone who is the "companion" of A must be called the "third" to that second; and that this "companion" and B are identical does not matter (so an Egyptian might well argue), because while you are thinking of B as the third to his second you have ceased to think of B as the original "one." Hence, in the biographical inscription cited by Professor SETHE: "When my second ('brother') was appointed chief Architect, I was his third." The perverse logic of this hardly exceeds what the Egyptians are already known to be capable of.

<sup>1</sup> Used of the King and Sothis in the Pyramids (10800<sup>a</sup>, 11320<sup>b</sup>). For Sothis as the King's sister cf. *Pyr.* 929b, 935a, 1123b, etc.

<sup>2</sup> SETHE, *Zeitschrift*, vol. XLVI, p. 35 ff.

To the instances of number-verbs (*hmt*: "to make three"; *ifd*: "to be four," etc.), cited in this section may be added *hxtm* & *kd*(?)<sup>1</sup>, "she has trebled her form (?)"; LACAU, *Textes Religieux* LXXXI, II, 34-5, and *kb*, *hmt*, *ifdl*: "doubled, trebled and quadrupled," *Hermel*, vol. XXIX, p. 165.

The characteristic Egyptian ordinal form, that developed from the root by a derivative ending -er, is next taken, and is shown to have its exact counterpart in Semitic. Very interesting are the examples collected from Egyptian and Arabic to show the original significance of the ordinal in those languages. Not "one occupying a certain position in a series," but "one of a certain number," seems to be the early meaning. Thus, when the Egyptian said: "I was one ('alone'), my heart was my second ('companion')," or when the Arab says: "he is a third of two!" (of which the Greek *oītis kai tpiros* is a close parallel), what is meant is, to take the latter case, "he is one who makes three of two" (by adding one to two, of course), that is, an additional third companion. And such a transitive verbal force is stated to be etymologically that of the Semitic participial ordinals. But in both languages the ordinal could also be used in a purely partitive sense, when it was desired, not to state that someone is added to others as a companion, but to affirm that he was a member of a group. Here again, there is no connotation of order in a series: when the Pyramids call the King "a fourth of those four gods," they no more mean that he is number four, the last of them, than Muhammad intended to assign to God the third place in the Christian Trinity in "They have said: God is the third of three." All that the word actually says is "one belonging to four" or to three. But the forms early became specialised in that more useful sense which tells us where a thing is in its series. "Fifth" comes to mean "that which has specially to do with five"; that which (in no matter how long a series) is named "five" when the units are numbered off—a different conception from that underlying the synonymous expression *mḥ I*. Hence it is not surprising to find in many languages (as Homeric Greek, Latin, German) an native form employed to denote the ordinal. Here the twentieth chapter is the twentieth; the fourth day the closest to four of any day; the second (*Beirepox*) the more two-like of the pair.

On a radically different principle, but equally logical, is the form employed by certain very primitive peoples, for whom the third is "what is attached to two," or "the two-follower," or "the one after two."

The short last chapter is devoted to Distributives, in the expression of which neither Egyptian nor Coptic rose above the most barbarous languages. Whether with numbers or other substantives a mere repetition had to suffice; so that "one by one," "day for day," "of one kind and another," "turning this way and that," were represented by "one-one," "day-day," "of kind-kind," "turning-turning." An earlier example for general substantives than those given by Professor SERJE is *bw bw nfr im R̄ im...*, "[good] place by good place which (i.e., 'whatever good place') He goes into..." (Pyr. 910c; ENK, *Gram.* § 502).

There are one or two misprints: *dīt 44* (Pyr. 124d) on p. 45, is written *dīt 4* in the original; for *t t 100*, p. 50, read *t t 100*; the reference "Pyr. 1182d" on p. 120 should be *Pyr. 1082d*; the Coptic full form of *shf*, "arura" communicated to the author by Dr GARDEIER was, the latter tells me, *caw*, not *cote* (see p. 72).

BATTISCOMBE GUNN.

*Horus in the Pyramid Texts: a Dissertation submitted . . . for the degree of Doctor of Philosophy.*  
By THOMAS GEORGE ALLEN. University of Chicago: Private Edition, 1916. Pp. 76.

Dr ALLEN's dissertation is a carefully compiled index of all references to the god Horus, in his various forms, occurring in the Pyramids, with four or five pages of introduction. The references are arranged in the main groups of Epithets, Magical or Mystic Names, Relationships, Nature, Activities, Eye of Horus, and Other Mythological References; which groups are subdivided under further headings. A Supplement deals with the Offspring of Horus, and an Appendix contains occurrences of divine names in general.

The value of such a work depends not only upon its elaboration as a methodical analysis, but upon the ease and confidence with which required information can be "looked up" in it; and in both respects Dr ALLEN's work seems to be very satisfactory, the indices being arranged as clearly and logically as is possible with such confused and often obscure materials. In nearly every case where the reviewer has tested it by seeking the reference for a particular (remembered) passage relating to Horus, he has found what was required without delay (the epithet *hr nfr f*: "he who is

<sup>1</sup> Compare these with what has been said above on the ordinal *hmt*.

upon his *ng-standard* (?)—Pyr. 1088—was an exception). It appeared in fact that the Index contained all matters relating directly to the god, and that these were easily traced. But when he asked, for example, the wider question: "In what places is Horus mentioned in association with Thoth (as in Pyr. 966, 1089, 1178, 1247, 1429)?" or: "In what groupings do the forms of Horus (as Horus-the-Eastern, Horus-of-the-Gods, Horus-shesmeti) occur, and where?" he found no answer at all. The absence of such information is regrettable, since collocations of this kind are surely of importance for the mythology of the Pyramid Texts.

Dr ALLEN tells us in the introduction that his original plan—frustrated by "the excessive wealth of material" which resulted—was to have submitted for his doctoral dissertation an index relating to all animate beings appearing in the Pyramids as supernatural agents, and hints that the work of which only a part is here put forth may be made accessible to his colleagues in further publications. It is greatly to be hoped that so competent a worker as Dr ALLEN will give us a complete index to the Pyramids, on lines similar to those of his investigation of Horus. Such a compilation, as well made as is this book, would be of great service, not only to Egyptology, but to the study of comparative religion in general. The interpretation of these texts, the oldest religious documents in existence, has been singularly neglected hitherto, and a thorough-going subject-index would afford a solid foundation for later research.

The system of transliteration used in this book is perhaps open to criticism, on the score not of the alphabet employed—which is the standard one—but of the excessively analytical breaking-up of words by means of points. In such writings as *y·jw·w·k* ("imperishable ones") *Ww·s(y)-f(y)* ("be who shall sail"), *w·t-h·w* ("great of honour") any advantage (and that there is any is doubtful) which is gained by thus dissecting the affirmatives away from their roots cannot compensate for the loss of legibility and the repellent appearance which result. And to use (as for example in *s·t-f*: "his daughter") the same mark to denote the relation of an affirmative to its root, and that of a suffix to its base, is hardly justifiable.

BATTISCOMBE GREEN.

*Notes on the Story of Sinuhe.* By ALAN H. GARDNER, D.Litt. Paris, 1916. Pp. 196.

The title of this work might seem to imply that it was a collection of jottings on the long and interesting, but difficult, text with which it deals. Far from that; it is really the commentary to the magnificent fac-similes with transcripts and translation published by the same scholar in the series of Berlin literary papyri in 1909 (*Die Erzählung des Sinuhe und die Hirtengeschichte* in *Literarische Texte des Mittleren Reiches herausgegeben von ADOLF ERMAN*, Band II). The bulk of this commentary, including a complete conspectus of parallel texts where such exist, was published in the periodical *Bulletin de Travaux*, edited by MASPERO, for 1910-12 and 1914; the separate issue is enriched by some new fragments of the text, additional notes, a revised translation and indexes of words and subjects. The Berlin publication and this, taken together, provide a complete edition of the Story of Sinuhe with all known fragments.

It is more than fifty years since the Cambridge Egyptologist GOODWIN gave a first reading of the tale from the fine papyrus at Berlin, obtaining at least a general idea of its movement. That the tale was exceedingly popular both in the Middle Kingdom (to which it belonged) and in the New Kingdom, is shown by the numerous fragments or extracts which have come to light from time to time. An ostracism found in 1886 supplied the lost beginning in a very corrupt state, and ten years ago GARDINER discovered extensive portions of the first half of the story in a papyrus from the Ramesseum, giving an excellent though fragmentary text of Middle Kingdom age. The tale, or portions of it, has been studied by many Egyptologists since CHADAS and GOODWIN; as lately as 1908 Professor MASPERO, utilising GARDINER's material and version, gave text commentary and index (*Les Mémoires de Sinouabit*) for students of the language, who can also consult his translation of 1911 in the fourth edition of *Les Contes populaires de l'Egypte Ancienne*. GARDINER has carefully gleaned from the work of previous editors and translators, has profited by the vast collections of words made for the Berlin Dictionary, and has invited and utilised suggestions from such specialists as Prof. SETHE of Göttingen and M. Devard in Switzerland to strengthen his own fine scholarship. He is thus able not only to reach new positions but also to establish himself there in most cases securely by quotation

of parallels. The advance on the old versions both in reading and interpretation is very great. One of the most striking results in detail is that the much discussed name 'Amunianshi' attributed to the Syrian prince who welcomed the fugitive Sinuhe should probably be resolved into two Egyptian names and be read 'Enshi son of 'Ann.' The philologist knows from experience what to expect in an edition of an important text by GARDNER. The geography of the story is somewhat obscure: GARDNER places the principal scene of Sinuhe's activity in Northern Syria and continues, 'It is impossible to read the story without gaining the impression that the writer describes a kind of life that he has seen and with which he is familiar; but it is also impossible to silence the suspicion that he has transferred to Northern Syria an account of conditions that only holds good for the half-nomadic tribes of Southern Palestine.' These and similar questions are thoroughly dealt with, and I venture to think that, although difficulties remain in plenty, for some time to come it will be hard to pick holes anywhere in GARDNER's work unless a new papyrus of the last half of the story should be discovered. Personally I have only detected one tiny lapse—the use of the word 'brambles' in the translation of B. L. 5, where the usual 'bushes' would surely be both more literal and more realistic.

F. L. GRIFFITH.

*Catalogue général des antiquités égyptiennes du Musée du Caire: Papyrus grecs d'époque byzantine.*  
Tome II. By JEAN MASPERO. Le Caire, Imprimerie de l'Institut Français d'Archéologie Orientale, 1916. Pp. xxxvi + 260. Eight plates.

This volume completes Jean MASPERO's great catalogue of the Byzantine papyri at Cairo, a catalogue to which we owe so notable an increase in our knowledge of the administration and the economic and social condition of sixth century Egypt. It completes it rather in fact than in intention; for though Sir Gaston MASPERO in his preface speaks of it as the final volume, in terms suggesting that there was no intention in any case of carrying the catalogue further, the editor himself, as appears from the prefatory note prefixed to Vol. I, proposed to include all the Cairo papyri of the Byzantine age. But the present volume, though it apparently exhausts the Kôm Ishqan Greek collection, does not, any more than the preceding ones, contain any texts from other finds, of which the Cairo Museum contains a fair number. Possibly the original plan had been modified; but whatever may have been Jean MASPERO's intention, the fortune of war has decided the matter; and this is the last volume of texts that we shall owe to him.

As the editor did not live to see this volume through the press, the final supervision had to be undertaken by his father, who has now himself followed the gifted young scholar to the grave; and he has prefixed to the catalogue proper an excellent portrait and a very charming memoir of Jean MASPERO, rendered specially interesting by the inclusion of his diary during the earlier part of the war and some extracts from his letters. Specimens of his verse are also given, which will reveal to those who knew him only through his scientific work a new and very attractive side to his personality. But it must be confessed that it is only with melancholy and an increased sense of loss that one can read this memoir of a scholar who, much as he had already done, had it in him to do so much more for historical study.

It is a proof of the wealth of material contained in the Kôm Ishqan papyri that, though two large volumes entirely drawn from them have preceded this, and though many papyri of the find have gone to London and Florence, the present volume shows no diminution of interest as compared with its predecessors. Like them, it exhibits in a special degree a characteristic which gives to the Byzantine Age its peculiar interest to the student—its mingling of two different worlds of thought and culture. In it, and (no doubt by mere accident) in the Kôm Ishqan texts more noticeably than in any other papyrus collection yet brought to light, the mediaeval and the ancient order meet—on the one hand the last dying gleams of Hellenism, on the other the new world of Christendom and the Middle Ages. Thus, in this volume we have the pagan world of Alexandria, the philosopher Hypatios with his σχόληις τοῦ τελείου διαβοήθειας and his τοῦ φύσεω περὶ τοῦ Ανθρώπου, and Diocorus with his poems on Achilles, his strange jumble of mythology, and his *clivias* from the classical epic; but side by side with them we find the whole organization of mediaeval Christianity, its churches and

monasteries and clergy, and we read of people leaving land to monasteries or bequeathing money "for the redemption of captives."

The catalogue follows the lines marked out in the preceding volumes and reveals the same knowledge of Byzantine antiquities as they. The editor did not live long enough to give to the later part the final revision: probably had he done so he would have corrected one or two slips and expanded the commentary in one or two places where it seems inadequate. It is to be regretted that, as in the previous volumes, he has not distinguished the various hands in the case of subscriptions. It is not always easy to be quite certain where a new hand begins, but usually there is no difficulty, and it should be a rule of editing to indicate changes of hand as exactly as possible. The volume, like previous ones, is excellently produced, and has elaborate indices, prepared by M. Bernard HAUSSOLLIER and the late Sir Gaston MASPERO. It coincides with eight good collotype plates. These are a little dark; but anyone who has worked at the Kôm Ishgan papyri will know that this is not a fault of the photographer's but is due to the very dark colour of many of the rolls. It should be added that Sir Gaster's memoir is followed by a very useful bibliography of Jean MASPERO's work.

Below are given remarks on the single texts. The references to *P. Lond.* v are to the fifth volume of the London catalogue, which will be published very shortly.

The first text in the volume, numbered 67140, is a republication of a papyrus previously published, from a hasty provisional transcript, in vol. II. The papyrus had disappeared after this transcript was made, but it has since come to light, and hence a new and much more intelligible copy is given here. The list is not of animals, as appeared from the first transcript, but of lands, belonging to the Count Ammonius, already known from vol. II. The single entries usually begin with *σεμπότος*, and MASPERO compares the *δρόπες καλούμεναις Σαρπάδορος* of 67118, taking *σεμπότος* as *σεμπός* and therefore the following name as that of the tenant; but *σεμπότος* at this period, especially in the Aphrodito papyri, regularly means *σεμπός*, and all analogy (supported by the fact that the names are in all cases personal, not topographical) suggests that *σεμπότος* does not mean simply "called" but is used in a sense, technical in tax- and hence no doubt in rent-registers, corresponding to that of the German *Posten*: i.e. it refers to the entry in the register under which the land was placed. Cf. in this same volume a receipt in 67323 (iii. verso, 1) *τιμρήγοντος καὶ (τι) ἐτέλεκτος ἔργου Κορηῆτος Φαλαρίδον*, "measured and paid by the account Cornelius son of Ph.", or again *P. Lond.* v, 1680, 1 f., *οὐκ ἐτέλεκτος τὸ ἔργον Εισοχεῖτον σὲ τὴν ΙΧθύον τὰς δημότικας* &c. *τοῦ Λευκοπηργίαν*. If, then, *σεμπότος* = *σεμπός*, it may be concluded that the names following *δρόποτος* are those of the direct tenants, those following *σεμπότος* those of the sub-tenants for whose payments the former are responsible. If on the other hand *σεμπότος* exceptionally stands for *ιωδός* (and this is perhaps supported by cases like 1. 9), the names following it are presumably those of the actual cultivators of the lands, whether by sub-lease from, or in succession to, the persons to whose names the lands are entered. 1. 2. *κατέδει* is more probably *καδίκει* than *κατεδίκει*, as is shown by *P. Lond.* v, 1680, 18, *P. Cuir. Mast.* I, 67097 r., 41; the form of abbreviation is not in the least inconsistent with this supposition. L.S. *μερός* 73: perhaps *μερός(ερθόντος)* γίγνεται?

The text following also takes us back to vol. II, as it is the beginning of the papyrus there published as no. 67163.

67278, 25. *βλ[α]γο[το]ς* seems very improbable. But I cannot suggest an alternative reading.

67283 is a very interesting and important document, showing that the people of Aphrodito had placed the village under the *patrocinium* of the Empress, no doubt in order to protect themselves against the encroachments of the pagarchs and other officials. MASPERO rightly takes the Empress to be Theodora; the argument on p. 17 in support of this theory seems hardly necessary in view of the explicit evidence of 67019, 11–12, quoted on the previous page, which must refer to the same fact. 1. 6. *I. καὶ [το]ὺς τερτίους γίγνεται*? This reading is supported by 1. 8, where *δημός*, though a restoration by the editor, seems very probable. 1. 11. MASPERO thinks that "*ταῦτα* représente probablement le verbe *ταπείνει*". It is no doubt simply the causal use of *ταῦτα*, "because we are in difficulties."

67287, 1, 19. MASPERO reads [(*σεμπός*) *κατέλογος* *δρόπος*], but *δρόπος* in this context seems inexplicable; *κατέλογος* can hardly be right. ii. 19. Can *Ἄδρ[α]γή κατέλογος* be read? In 67052, 67053 *καταβολή*, apparently used absolutely, heads an order for payments from the village treasury and may therefore have the technical sense of "order for payment." Here the meaning might be that the payment was made without such a commission.

67291 is an interesting document, concerning a remission of taxation which Aphrodite managed to secure in consideration of its poverty.

67294, 12. *t. ἀναστάσιος?* But the usual word is *ἀποδίπτων*. This is a duplicate of the very interesting document 67089.

67295, already published by MASPERO among the Boeotian papyri, is one of the most interesting documents in the whole collection, as it brings us into intimate relations with Horapollon, one of that small circle of pagan philosophers who towards the end of the fifth century still kept alive the old Hellenistic traditions at Alexandria. The main text in the long papyrus is a memorial (*ὑγρόπτεροι λιγέλλαι*) by the philosopher against his wife who, though his cousin, had eloped with a lover and despoiled him of much of his property. P. 1. l. 20. *t. περὶ Σίμηνος, i.e. away from his native place, his wife!*

67298 and 67299 are two interesting examples of emphyteusia, all the more valuable as deeds of this class are comparatively rare among published papyri.

67300, 2. MASPERO translates *ἐπὶ στόματος* Σούρους "agissant au nom de Scourous(!)." In *P. Lond. v.* 1695 a *κτήμα* which appears to be the same is the property of the same Sibylla and Heraia, and MASPERO's rendering is therefore improbable. Probably *σόουρα* is used in the same sense as in 67140; the land was still entered to the *έργα* of Scourous, having perhaps been inherited from him by Sibylla and Heraia. L. 13. With *τὸν τελείῳ* MASPERO supplies *σιρός*. This, as I have shown in *P. Lond. v.* is incorrect; the phrase *τὸν τελείῳ καὶ ἀβροχεῖῳ* almost certainly means (supplying something like *καρπός*) "whether the land is irrigated or not."

67301 is useful as mentioning the nome of Apollanopolis Minor; so too 67303.

67303 is an interesting document, being a lease by Diocorus of a *Δαλετῆ* (άλετή) *δραχά*, which contains many unusual words. Among them is a valuable Coptic equivalent—*ξελεγκτούσιος* (the wooden body of the waggon) *τροφής*. MASPERO says that this word is unknown to Coptic dictionaries, but Mr CRAKE tells me that *ειών* is a common word for "garden" or "vineyard." *ξελεγκτούσιος* is, however, a sense so remote from this that one may perhaps doubt whether the same word is in question. L. 16. *ξεπίρρυπος* no doubt refers to the artaba of 6 *μερπα*, i.e. probably the 24-choinices artaba.

67307 is a rather puzzling receipt owing to mutilation, and it may be doubted whether MASPERO's supplements can stand. In l. 3, for example, JONES naturally suggests *έκφοιτας*; but if this is read the position of the *όπων* can hardly have been specified in the available space; probably its name was given instead. If *όπων* occurred in l. 4, it may have been used to cover all the dues, the rent, taxes, etc., being specified separately in what follows: as *έκφοιτας* seems to occur again in l. 8 that line presumably refers to the *έκφοιτας* of the second induction; cf. l. 12 f. In l. 7 very likely *φοροί* *δημοσίες*.

67309, 23. For [α]ράφι probably a name (of the street) should be read; *P. Lond. v.* 1715 shows that Antinoopolis had named streets at this date.

67310 introduces us to a very interesting type of marriage contract—interesting because the contract was drawn up after the consummation of the marriage. MASPERO suggests "un souvenir de l'ancien 'mariage d'essai' égyptien"; but this does not seem likely in the sixth century, and probably some other explanation must be sought for. Has the fact that the husband is a soldier anything to do with it? *P. Lond. v.* 1711 is a copy of the final contract of which 67310 is a draft and has supplied MASPERO with some readings, but one or two more must be added. L. 9. *t. ἀναστάσιος*. L. 12. *t. Ιαπετοῦ λόγεος*. Verso, l. 3. The reading in the London document is certainly different from that given by MASPERO but is not yet clear.

67312 is a very interesting will; interesting because it contains a bequest to the White Monastery and another for the redemption of captives.

67313, 3. beginning. Perhaps [*τις, γνω̄ς?*] This seems required by the sense. ll. 20—22 are very interesting for the light they throw on the land problem of Byzantine times: the tendency of landowners, owing to the burden of taxation, to let land go out of cultivation. In l. 38 is to be noted the use of iota adscript.

67314, 6. Probably *τις [τις.....και] ἡγέρτης τετραγένετος*.

In 67315 and the following papyri are some more poems by Diocorus, yielding nothing in sadness to those already published. The first in 67316 is particularly interesting as it is not addressed to a contemporary; it is the dying speech of Achilles, slain through his love for Polyxena. This papyrus

is also noteworthy because it has a "protocol" written in a more legible script than any previously discovered. It is unfortunately fragmentary, and MASPERO has not read all of it, but probably it can be read eventually, and it will perhaps prove the key to unlock the mystery of the Byzantine protocol. So far as read it confirms MASPERO's tentative readings of the less legible protocols in 67151, etc.

67319 is of interest if MASPERO's explanation, that it contains a list of pastures belonging to Dioscorus and devastated by his enemies, is correct. But the explanation, though not improbable, is by no means certain. The indictments mentioned are indeed the 14th, 15th and 1st, and may therefore be the same as those in which Dioscorus had his quarrel with Menas and lost his lands; but in 67002 the punishment is of course, not of pastures and the word *εξικρολητής*, which occurs several times, though its occurrence in 67143 and 67144 suggests a sinister significance ("at the instigation of"), cannot have any such meaning in 67325, 1 recto, 6, 24, where it also occurs. Moreover Dioscorus's brother Menas occurs here (*εξικρολητής Μηνᾶς* [sic] *αδελφοῦ μου*), and we do not elsewhere hear of bad relations between Dioscorus and his relatives. Hence the list may merely be one of pastures whose grazing Dioscorus had leased out, *βοσκήσσων* having the sense of "grazed." But MASPERO's explanation is of course quite possible.

67320 (B), II, 12. MASPERO suggests for the symbol either *άγρια* or *λίπαν*. It is almost certainly *έγρια*, i.e. ξ with a line through it.

67323, 17. MASPERO supplies *τέκνον Διοσκορού*, making the passage refer to the poet's grandfather. We know however from *P. Flor.* III, 280<sup>1</sup> that he was already dead in A.D. 514, so that if he was alive now 67323 must be dated improbably early. Psammōbet, however, the poet's great grandfather, certainly lived to be an old man (*P. Lond.* V, 1601, 16 [vii]; *οίκιον τοῦ γραμμ. Φαραώθηρ* dated in A.D. 532!), and possibly he may be the person referred to. One might suggest *τέκνον τάττων σου*. But other people of the name are known at Aphrodisio.

67325 is (with 67111) the latest datable papyrus in the whole sixth century Kün Ishgau collection, bringing us down to 585 and perhaps beyond. It is, too, an interesting papyrus in itself, among other reasons because it shows us that the pagarchy was at this time divided into two *plēmōn*. It is a sort of note-book, containing accounts, tax receipts, and one contract (apparently a copy). MASPERO finds it difficult to determine the way in which the book was filled in, because he takes the Apellos son of Dioscorus mentioned on f. 8<sup>o</sup> to be the poet's father. But this seems quite impossible when we remember that Apellos died about 542; a book of this kind would hardly receive entries on the last page before 542 and then be used, on preceding pages, in 585 or thereabouts; moreover these last receipts are like the preceding ones in form and contain names occurring in them. The inference is obvious that the Apellos in question was not the poet's father but his son. It was of course a very common practise among the Copts to give a boy the same name as his grandfather, and Dioscorus himself was called after his grandfather. This brings us another generation lower in the family history.

The book was evidently one kept for miscellaneous memoranda; as the receipts seem to be originals, we may suppose that it was submitted to the tax collectors on payment of taxes to have the receipts inserted. But the composition is still not very clear, for though many entries refer to Dioscorus or his son (?), he is not the only person concerned. Cornelius son of Philantinus occurs frequently, and the contract referred to is a lease by a daughter of John son of Cornelius to Macarius son of Pacuanichius. We may suppose that Dioscorus and Cornelius were associated in the administration of some property. F. 1 recto, 9, *εἰς τὸ ὅπον* suggests that this may be monastic (*ὅπον* often = *μοναστήριον*); or again f. 2 recto, 8, (*εἰς τὸ* *εἴρητον*) *Ἄπλον Μίτρη* might suggest that it was village property, Dioscorus and Cornelius acting as *επιτρεπτήρι*; but the amounts and the fact that the receipt is given by the village *γραμματίς* make this unlikely. As for the receipts to other persons (the heirs of Bekins), Dioscorus and Cornelius may have been among these heirs; or the receipts may have been included because the payments were made through the same agent. The presence of the document on f. 4 may be accounted for by a relationship of the lessor (grand-daughter of a Cornelius) to Cornelius, or on other grounds. F. 1 verso, 16 ff. Surely *εγγένει* is *άγγελα* rather than *άγγελον*. F. 2 recto, 3 f. *πέμπτη* is no doubt right. 10. *ερῆσ* is certainly *εροθήκαις*, as proved by documents in *P. Lond.* V.

67323 is of some importance for the light it throws on the duties, organization, and method of appointment of the rural police (*χωρίαρχος* and *γύροφύλακες*).

<sup>1</sup> This does not indeed prove Ps. to have been still alive at the time; cf. *P. Lond.* 1693, 6 f., *τεκνόν Διοσκορού* *τοῦ γραμμ. Φαραώθηρ*.

67339 is of even greater interest not merely because of its form—it contains the report of proceedings before the *defensor*, a type of document not too common among papyri of the sixth century—but because it throws light on land and taxation questions. MASPERO's introduction, if he wrote one, having been lost, a description of the document was provided by Prof. CIG, who says that the discussion concerns "un transfert par voie administrative de *zemyna* du village de Thmomschithō...dans celat d'Aphrodith pour y cultiver des parcelles de terres publiques." Prof. CIG's authority on such matters is high, but his explanation in this case is certainly wrong; the wording of the document leaves no doubt that it was lands and not *zemyna* who were transferred. These lands had been transferred, when a new register of the land in the nome was prepared, from Aphrodito to Thmonechthe; and the owner is now asking that, for taxation purposes at all events, they may be re-transferred to Aphrodito, since, as his remaining property is situated there, it is more convenient for him to pay all his taxes to one authority, that, namely, of Aphrodito. In *P. Leod.* v, 1626 Diocorus similarly speaks of land of his own transferred from Phthila to Aphrodita. What the purpose of such transference was is not clear, but it may have depended on fiscal considerations; if so much land in one village area had gone out of cultivation that the village found a difficulty in paying its tax quota, land may possibly have been transferred to it from a more prosperous neighbouring village. *P. I.*, l. 4. For *zemynas* *t.* perhaps *περιθελα*.

67333, 9. *ωντι* *χρω* is clear enough if we suppose *διαχειροῦσα* to be meant in a passive, a supposition quite possible in this rather illiterate document. *L. 18.* Perhaps [θοξ] *ν* at the beginning of the undeciphered portion? The document is perhaps a transfer of property to Besarion and Apollon.

67340 is an interesting marriage contract, the bride being a widow or divorced woman. *Recto*, *L. 27.* *t. αγίστης σύζυγης* *ν* or, if *ν* can be read, *σύζυγος αγίστης*? On the verso is an interesting *donatio litterarum*.

67353 verso is an interesting document of *διαχείρισης*. That it is an actual document is important, as it tends to confirm CIG's view, against MASPERO and LEWALD (see *Journ. Eg. Arch.* II, p. 105), that 67007 verso (D) was also an actual document, not a mere exercise in declamation.

67354 consists of two fragments of a petition to the Empress. MASPERO considers the question whether they belong to 67283. He is inclined to answer it in the negative, mainly because it is difficult to fit them in at the required place; but it seems by no means impossible to imagine readings which would allow of ll. 2—3 being placed in 67283, 2—5.

67359 is the one papyrus in the volume not written in the sixth century. It comes from the first Kôm Ishqan find and belongs, like the rest, to the eighth century. It had not received any final revision from Jean MASPERO, and to this fact may probably be attributed some slips and the inadequacy of the commentary. It is a list of sailors and skilled workmen for various *σημεῖα* of the year 97 a. H. *P. 2 recto*, 1. MASPERO's proposed *διανομῆσαι* seems very unlikely, though the suggestion quoted from my own volume is also not quite satisfactory. *P. 3 verso*, 3. For *αὐτοὺς τὴν* *αὐτοὺς* (which MASPERO leaves unexplained) *t. ἀνέρεψας ξ(ατά) ἀνέρεψαν*. So too *4v*, 2. *P. 6 recto*, 9. *t. διανεψεψαν*. *Μ[ε]σ[η]* is evidently a misprint of some kind.

I must conclude this already too lengthy review by expressing the gratitude which students of Byzantine Egypt will feel to the deceased editor and to Sir Gaston, who saw the work through the press; and since it is only to the dead that our thanks can now be given, we may couple with them the vain, pedantic, flowery advocate of Aphrodito to whose industry and pride in his "monuments" we owe so much precious information about the administrative, economic, and social history of sixth century Egypt.

H. L. BELL.

## LAST LINES.

From the French of Jean MASPERO.

[The original was written by Jean Maspero the night before his death, and after receiving instructions for the attack on Vauquois the following day, in which his company was to form part of the first line. He fell in the attack, Feb. 17, 1915, immediately after saying to his neighbour, "C'est la plus belle mort qui vient à nous."]

I only heed not sleep's alluring call,  
 Here, in this trench, where men have looked on death,  
 Where, as she comes, night with her drowsy breath  
 Lulls those to sleep who with the day must fall.

This for joy's sake, and that despite of tears,  
 Each loves his life and dreams of new delight;  
 Yet here they sleep, while in the womb of night  
 The doom is shaped which ends their budding years.

But I, who many a time have longed to die,  
 Who nothing hoped from all earth's pomp and show,  
 I, only I must that deep horror know  
 Which in the chill flesh creeps when death is nigh.

H. L. BELL.



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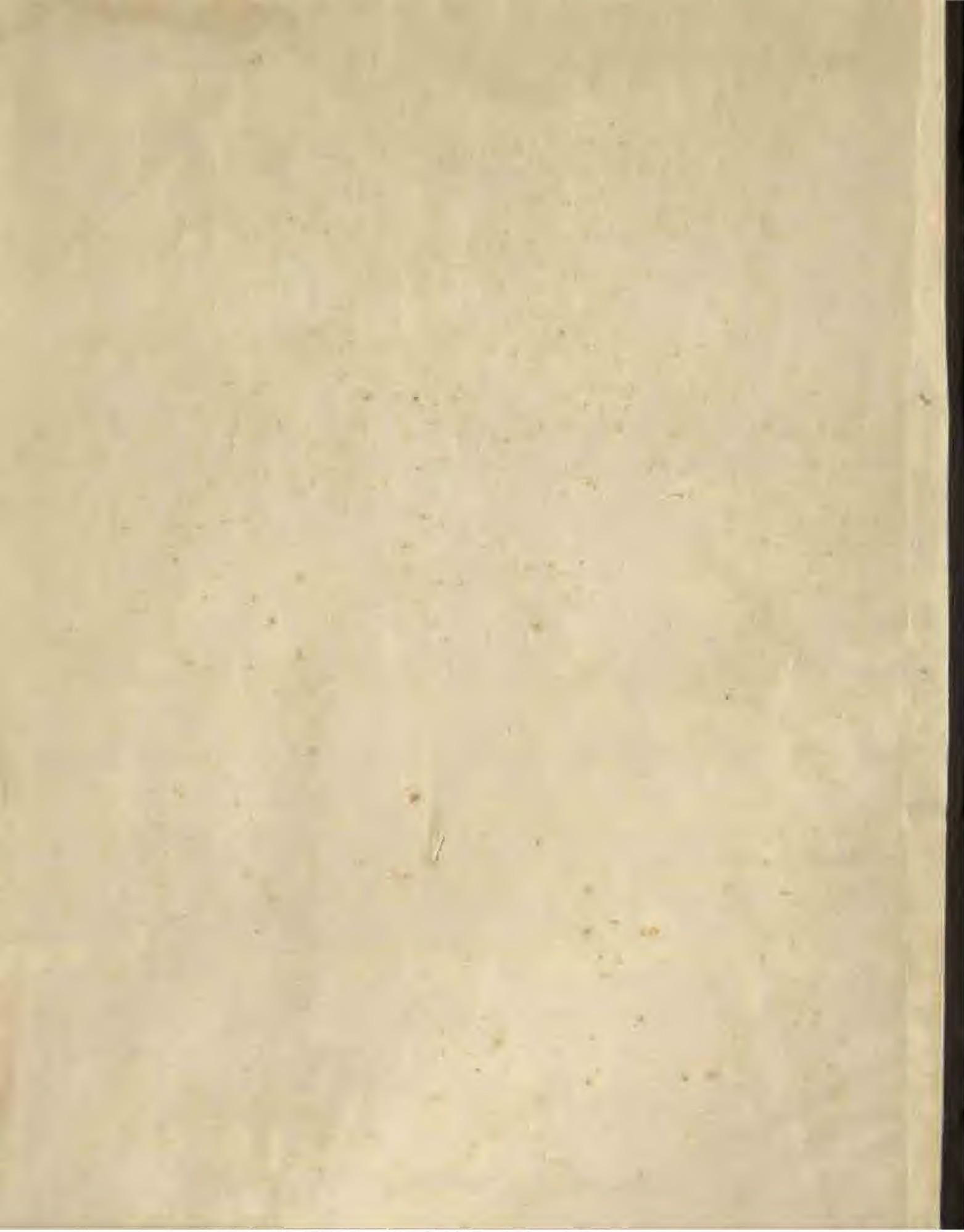
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